

## NOTICES OF FINAL RULEMAKING

The Administrative Procedure Act requires the publication of the final rules of the state's agencies. Final rules are those which have appeared in the Register first as proposed rules and have been through the formal rulemaking process including approval by the Governor's Regulatory Review Council. The Secretary of State shall publish the notice along with the Preamble and the full text in the next available issue of the Register after the final rules have been submitted for filing and publication.

### NOTICE OF FINAL RULEMAKING

#### TITLE 7. EDUCATION

#### CHAPTER 2. STATE BOARD OF EDUCATION

#### PREAMBLE

- 1. Sections Affected**  
R7-2-806
- 2. The specific authority for the rulemaking, including both the authorizing statute (general) and the statutes the rules are implementing (specific):**  
Authorizing statute: A.R.S. §15-203(A)  
Implementing statutes: A.R.S. §§ 15-183(R); 15-203(B)(4); and 15-272(C)
- 3. The effective date of the rule:**  
December 15, 2000
- 4. A list of all previous notices appearing in the Register addressing the final rule:**  
Notice of Rulemaking Docket Opening: 3 A.A.R. 2806, October 10, 1997  
Notice of Proposed Rulemaking: 3 A.A.R. 2966, October 24, 1997
- 5. The name and address of agency personnel with whom persons may communicate regarding the rule:**  
Name: Corinne L. Velasquez  
Executive Director  
  
Address: 1535 West Jefferson, Room 418  
Phoenix, Arizona 85007  
  
Telephone: (602) 542-5057  
Fax: (602) 542-3046
- 6. An explanation of the rule, including the agency's reasons for initiating the rule:**  
R7-2-806 set for the procedures for rehearings before the State Board of Education.  
  
The Board initiated and adopted a repeal of R7-2-806 as procedures for rehearings are included in the Board's new rules related to hearings, R7-2-701 et seq.
- 7. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:**  
Not applicable
- 8. The summary of the economic, small business and consumer impact:**  
There is no anticipated economic, small business or consumer impact in repealing the language of R7-2-806. Any party aggrieved by a decision of the Board will continue to have the opportunity to request a rehearing of the matter before the Board. The procedures for rehearing of matters before the Board will now be contained within rules related to hearings, R7-2-701 et seq.
- 9. A description of the changes between the proposed rules, including supplemental notices, and final rules (if applicable):**  
None
- 10. A summary of the principal comments and the agency response to them:**  
There were no comments received, oral or written, related to this rule making action.

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**11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:**

Not applicable

**12. Incorporations by reference and their location in the rules:**

None

**13. Was this rule previously adopted as an emergency rule?**

No

**14. The full text of the rule follows:**

**TITLE 7. EDUCATION**

**CHAPTER 2. STATE BOARD OF EDUCATION**

**ARTICLE 8. COMPLIANCE**

R7-2-806. Rehearing procedure Repealed

**ARTICLE 8. COMPLIANCE**

**R7-2-806. Rehearing procedure Repealed**

- A.** Unless otherwise provided in another rule for a specific type of hearing:
1. Any party aggrieved by a decision rendered by the Board may file with the Board, not later than 15 days after service of the decision, a written motion for a rehearing or review of the decision, specifying the particular grounds therefor.
  2. A response may be filed within ten days after service of such motion by any other party or by the Attorney General.
  3. The Board may require the filing of written memoranda upon the issues raised in the motion and may provide for oral argument.
  4. The Board may consolidate the hearing to consider the motion for rehearing with the requested rehearing.
- B.** A rehearing or review of the decision may be granted for any of the following causes materially affecting the moving party's rights:
1. Irregularity in the administrative proceedings before the Board or abuse of discretion, whereby the moving party was deprived of a fair hearing;
  2. Misconduct of the Board or the prevailing party;
  3. Accident or surprise which could not have been prevented by ordinary prudence;
  4. Newly discovered material evidence which could not with reasonable diligence have been discovered and produced at the original hearing;
  5. Excessive or insufficient penalty;
  6. Error in the admission or rejection of evidence or other errors of law occurring in the administrative hearing;
  7. That the decision is not justified by the evidence or is contrary to law.
- C.** The Board may affirm or modify the decision or grant a rehearing to all or any of the parties on all or part if the issues for any of the reasons set forth in subsection (B). An order granting a rehearing shall specify with particularity the ground or grounds on which the rehearing is granted and the rehearing shall cover only those matters so specified.
- D.** Not later than 15 days after a decision is rendered, the Board may on its own initiative order a rehearing or a review of its decision for any reason for which it might have granted a rehearing on motion of a party. After giving the parties or their counsel notice and an opportunity to be heard on the matter, the Board may grant a motion for a rehearing for a reason not stated in the motion. In either case, the order granting such a rehearing shall specify the grounds on which the order is based.
- E.** When a motion for rehearing is based upon affidavits, they shall be served with the motion. An opposing party may, within ten days after such service, serve opposing affidavits, which period may be extended for an additional period not exceeding 20 days, by the Board for good cause shown, or by the parties by written stipulation. The Board may permit a reply affidavit by the moving party.
- F.** If in a particular decision the Board makes specific findings that the immediate effectiveness of such decision is necessary for the immediate preservation of the public peace, health and safety and that a rehearing or review of the decision is impracticable, unnecessary or contrary to the public interest, the decision may be issued as a final decision without an opportunity for a rehearing or review. If a decision is issued as a final decision without an opportunity for rehearing, any application for judicial review of the decision shall be made within the time limits permitted for applications for judicial review of the Board's final decision.

NOTICE OF FINAL RULEMAKING

TITLE 9. HEALTH SERVICES

CHAPTER 14. DEPARTMENT OF HEALTH SERVICES  
LABORATORIES

PREAMBLE

**1. Section Affected**

**Rulemaking Action**

R9-14-601	Amend
R9-14-602	Amend
R9-14-603	Amend
R9-14-604	Amend
R9-14-605	Renumber
R9-14-605	New Section
R9-14-606	Renumber
R9-14-606	Amend
R9-14-607	Renumber
R9-14-607	Amend
R9-14-608	Renumber
R9-14-608	New Section
R9-14-609	Renumber
R9-14-609	Amend
R9-14-610	Renumber
R9-14-610	Amend
R9-14-611	Renumber
R9-14-611	Amend
R9-14-612	Renumber
R9-14-612	Amend
R9-14-613	Renumber
R9-14-613	Amend
R9-14-614	Renumber
R9-14-614	Amend
R9-14-615	Renumber
R9-14-615	Amend
R9-14-616	Repeal
R9-14-616	Renumber
R9-14-616	Amend
R9-14-617	Renumber
R9-14-617	Amend
R9-14-618	Renumber
R9-14-618	Amend
R9-14-619	Renumber
R9-14-619	Amend
R9-14-620	New Section
Table 1	New Table

**2. The specific authority for the rulemaking, including both the authorizing statutes (general) and the statutes the rules are implementing (specific):**

Authorizing statutes: A.R.S. §§ 36-136 and 36-495.13

Implementing statutes: A.R.S. §§ 36-495.01, 36-495.02, 36-495.03, 36-495.05, 36-495.06, 36-495.07, 36-495.08, 36-495.09, and 36-495.14

**3. The effective date for the rule:**

December 15, 2000

**4. A list of all previous notices appearing in the Register addressing the proposed rules:**

Notice of Rulemaking Docket Opening: 5 A.A.R. 4660, December 17, 1999

Notice of Proposed Rulemaking: 6 A.A.R. 3414, September 8, 2000

Notice of Proposed Rulemaking: 6 A.A.R. 3702, September 29, 2000

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**5. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:**

Name: Steven D. Baker, Program Manager  
Address: Arizona Department of Health Services  
Office of Laboratory Licensure, Certification, and Training  
3443 North Central Ave., # 810  
Phoenix, Arizona 85012  
Telephone: (602) 255-3454  
Fax: (602) 255-3462  
E-mail: sbaker@hs.state.az.us

or

Name: Kathleen Phillips, Rules Administrator  
Address: Arizona Department of Health Services  
1740 West Adams, Room # 102  
Phoenix, Arizona 85007  
Telephone: (602) 542-1264  
Fax: (602) 542-1090  
E-mail: kphilli@hs.state.az.us

**6. An explanation of the rule, including the agency's reasons for initiating the rule:**

The rules pertain to licensing in-state and out-of-state laboratories that conduct testing of samples for contaminants, pollutants, and hazardous substances for state and federal environmental compliance purposes. The rules establish minimum standards of proficiency, methodology, quality assurance, operation, and safety for these environmental laboratories. The rules establish updated standards for environmental laboratory compliance testing; increase and clarify the fees associated with licensing; add a zone fee to be paid by out-of-state laboratories; create an installment payment plan to allow small businesses to pay their method and instrument fees, proficiency evaluation fees, and technical update fees on a monthly basis rather than in a lump sum; clarify time-frame requirements and add new time-frames; clarify the rules; and change the rules to conform to current rulemaking format and style requirements.

The Department developed the rules with the assistance of the Rules Subcommittee of the Environmental Laboratory Advisory Council. The Department worked with the Rules Subcommittee to revise the draft rules to address the concerns of Rules Subcommittee members. For example, the Department determined, as a result of Rules Subcommittee comments, that implementing an installment payment plan to allow small businesses to pay method and instrument, proficiency evaluation, and technical update fees on a monthly basis would ease the burden resulting from the fee increase in the rules. Also as a result of Rules Subcommittee concerns, the Department surveyed all licensed private laboratories regarding their small business status, to assure that the Department accurately portrayed the impact of the rules on small businesses. The Department also added several methods and made other revisions to the text of the rules at the request of Rules Subcommittee members.

In this rulemaking, the Department is amending R9-14-601, R9-14-603, and R9-14-604 by replacing the current language with new language that conforms to current rulemaking format and style requirements. In addition, the new language in R9-14-601 adds definitions for terms previously undefined and for new terms. The Department is adding a new Section at R9-14-605 that clarifies that the Department may conduct compliance monitoring at any time and describes the procedures to be followed when the Department issues a notice of deficiencies. The current R9-14-605 is being renumbered to R9-14-606 and amended to clarify provisional licensing, to comply with A.R.S. § 36-495.05 and the Administrative Procedure Act, and to conform to current rulemaking format and style requirements.

The Department is renumbering and amending the current R9-14-613, R9-14-614, and R9-14-615 to clarify the rules and to conform to current rulemaking format and style requirements. The Department is renumbering and amending the current R9-14-606 to generate increased fees that reflect the costs to the Department of conducting laboratory inspections and investigations, verifying information submitted with applications, and performing other activities related to licensure. The amended fees Section will also add fees for new parameters. The Department set the fee increase at 30% because that is the level at which fee revenue will enable the Department to employ a full staff of auditors and thus complete inspections every 12 months, as the authorizing statutes intend. The Department is adding a new Section at R9-14-608 to explain the process for calculating and billing fees and to add the option of a payment plan for small businesses to pay their method and instrument, proficiency evaluation, and technical update fees on a monthly basis rather than in a lump sum.

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The Department is renumbering and amending the current R9-14-608, R9-14-609, R9-14-610, R9-14-611, and R9-14-612 to be consistent with current United States Environmental Protection Agency (EPA) and Arizona Department of Environmental Quality (ADEQ) requirements. Since the rules were last revised in June 1997, the EPA and ADEQ have approved and required additional methods for testing environmental contaminants to implement improved and changing technologies that result in increased sensitivity, accuracy, and efficiency in environmental testing. Additionally, the EPA and ADEQ have disallowed the use of some outdated methods that employ older technologies. Thus, these Sections are being amended to add new methods and to delete outdated methods. In addition, the Department is amending the current R9-14-608 to correct the citation format of the material previously incorporated by reference, to make the information easier to use.

The Department is repealing R9-14-616, because laboratory safety is now being addressed as part of laboratory operation. The Department is also renumbering and amending the current R9-14-617 to clarify the requirements for mobile laboratories. The Department is also renumbering and amending the current R9-14-618 to clarify the requirements for out-of-state laboratories and to add a zone fee to cover the opportunity costs lost due to employee travel to out-of-state laboratories. Finally, the Department is adding a new time-frames Section at R9-14-620.

**7. A reference to any study that the agency relied on in its evaluation of or justification for the rule and where the public may obtain or review the study, all data underlying each study, any analysis of the study, and other supporting material:**

None

**8. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of this state:**

Not applicable

**9. The summary of the economic, small business, and consumer impact:**

The rules increase the fees associated with licensing by 30%. This results in an increase in application fees by \$258 to \$420, depending on the number of parameters licensed for the laboratory and the number of facilities licensed. Each laboratory will also pay up to \$2,240 more in method and instrumentation fees, depending on the number of methods and instruments included on the laboratory's license. For most of the laboratories licensed (118 out of 156), this increase in method and instrumentation fees will be minimal, with 41 of the laboratories incurring an increase of less than \$100, 56 incurring an increase between \$100 and \$499, and 21 incurring an increase between \$500 and \$999. For the remaining 38 laboratories, the increase will be moderate at \$1,000 to \$2,803.

Each laboratory will also pay \$23 more each year for proficiency evaluation audits. Each out-of-state laboratory will also pay \$23 more each year for technical updates if the laboratory chooses to receive them by facsimile transmission rather than through the Internet.

The rules also add a zone fee of \$88 to \$225 to be paid by out-of-state laboratories to reimburse the Department for the time that each Department auditor is in travel status en route to on-site compliance monitoring activities. The zone fee is based on the time necessary to travel to the out-of-state laboratory and will be payable for each Department auditor who travels to the laboratory to conduct the compliance monitoring activity.

Approximately 25 of the 117 licensed private laboratories are small businesses, 10 of them out-of-state laboratories. Of these, 15 will be minimally impacted by the rules with a total increase in fees of between \$281 and \$916, and 10 will be moderately impacted with a total increase in fees of between \$1,014 and \$2,702. The Department is attempting to ease the burden of the increased fees on small businesses by allowing small businesses to pay method and instrument fees, proficiency evaluation fees, and technical update fees through a monthly installment plan rather than in a lump sum due at the time of application.

The Department will incur moderate costs in implementing the rules. The Department will incur a cost of approximately \$1,500 initially for staff time to update the office of laboratory licensure's application and billing system. In addition, the Department will incur a moderate cost for staff time to write, review, and finalize the rules. The Office of the Secretary of State and the Governor's Regulatory Review Council will also incur minimal-to-moderate costs related to the rulemaking process.

The Department will benefit substantially from the rules because fee revenues could increase by as much as \$162,381 annually. The Department anticipates, however, that the 30% fee increase will result in an actual increase in fee revenue of 20-30% due to industry consolidations and individual laboratories' efforts to conserve funds by eliminating little used methods or parameters in renewing their licenses.

The fee increase is designed to enable the office to operate as the legislature intended by providing the funding needed for the office to fill 1.79 FTE auditor vacancies that have left the office inadequately staffed for more than 2 years. The office needs to fill the auditor vacancies to conduct audits every 12 months, as the authorizing statutes intend, rather than every 18 to 24 months, as is currently occurring.

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Although the office had a small surplus for FY2000 (approximately \$13,900), this is due to the program's running with only 4.21 FTE auditors, 1.79 fewer than are needed. Even with only 4.21 FTE auditors, there is a projected funding surplus of only \$1,972 for FY2001. As of October 31, 2000, the program had an actual deficit of \$37,859.63 for FY2001. If the office had the 6 FTE auditors needed to perform inspections every 12 months (rather than the current 4.21 FTE auditors) and did not receive a fee increase, the projected deficit for FY2001 would be approximately \$107,500.

To compensate for the fee increases, laboratories may choose to increase testing fees charged to their clients, although in some instances this will not be possible. These clients, if drinking water or waste water treatment systems, may pass the increased testing fees on to system users, the public, who would notice very slight increases on their billing statements.

The public will be the primary beneficiary of the rules. The public is significantly affected by the accuracy of the data used to evaluate air quality; environmental projects such as hazardous waste clean-ups; engineering projects such as sewage treatment plants; and the quality of the drinking water in underground aquifers, underground wells, and surface waters. Without the fee increase included in the rules, the office of laboratory licensure will not be able to function effectively to monitor the environmental laboratories that perform this compliance testing, and the public may suffer as a result.

**10. A description of the changes between the proposed rules, including supplemental notices, and final rules:**

The table of contents is revised to show renumbering of Sections as required by A.A.C. R1-1-404.

In A.A.C. R9-14-601, subsection (3)(c) and subsection (31) are revised to make the definitions more clear, concise, and understandable.

In the new A.A.C. R9-14-605(D), the words "1 of the following, in which case the Department shall take action under A.R.S. § 36-495.09" are added to make the subsection more clear, concise, and understandable.

In the new A.A.C. R9-14-607(C)(7) and (8), the headings "Single Method" and "Combination" that were struck out in the republication of the Notice of Proposed Rulemaking are not struck out.

In the new A.A.C. R9-14-615(B)(4), the word "shall" is changed to "will" to make the subsection more clear, concise, and understandable.

In Table 1, in the 1st cell of the last row, the citation is changed from "A.A.C. R9-18-615(D)" to "A.A.C. R9-14-615(D)" to correct the citation.

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**11. A summary of the principal comments and the agency response to them:**

<b>Rule</b>	<b>Question or Comment</b>	<b>Agency Response</b>
A.A.C. R9-14-604	What happens when a laboratory moves locations? This was included in the old rule, but is not in the new rule.	A.R.S. § 36-495.03(E) provides that a license is valid only for the facility or facilities for which it is issued. A.R.S. § 36-495 defines “facility” to mean “a place, building, installation, structure or vehicle”. Thus, when a laboratory moves from 1 facility to another, its license is no longer valid. As described in A.R.S. § 36-495.03(E), the license automatically expires unless the licensee notifies ADHS of the change in writing within 20 business days after the change and submits an application for a new license. ADHS will not charge a fee for this application and will issue the license if the laboratory is still in compliance with A.R.S. Title 36, Chapter 4.3 and the rules. Because this is adequately described in statute, ADHS did not include it within the rule.
A.A.C. R9-14-607	How is the payment of fees clarified by the rules?	ADHS has added a new Section at A.A.C. R9-14-608 entitled “Payment of Fees”. The new Section describes the ADHS procedures for calculating and billing fees. Previously, these procedures were not described.
A.A.C. R9-14-617(E)(6)	What is a “critical step” for purposes of recording test date and time?	The term “critical step” is defined in the new A.A.C. R9-14-601(18) as “an event in the testing procedure that is required to be performed within a specified time period by regulation, method, standard operating procedure, or quality assurance plan”. ADHS added the critical step language to clarify that certain dates and times are required to be included in a compliance testing record if events within the testing procedure are required to be performed within a specific time period. ADHS believes that the definition of “critical step” is clear, concise, and understandable and does not intend to make any changes to it. The commenter had not yet read the definition.
9 A.A.C. 14, Art. 6	The commenter expressed support for the rule changes.	ADHS appreciates the support.

**12. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:**

Not applicable

**13. Incorporations by reference and their location in the rules:**

R9-14-601(28): 40 CFR Part 136 app. B (1998).

R9-14-610(A):

- A3 Technicon Industrial Systems, Industrial Method No. 380-75WE, Fluoride in Water and Wastewater (July 1977).
- A4 Office of Water, EPA, Pub. No. EPA-821-R-99-005, Method 1631, Revision B: Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry (May 1999).
- C1 Hach Company, Hach Water Analysis Handbook (3rd ed. 1997).
- D3 National Exposure Research Laboratory–Cincinnati, EPA, Pub. No. EPA/600/R-95/131, Methods for the Determination of Organic Compounds in Drinking Water: Supplement III (August 1995).
- D4 Office of Ground Water and Drinking Water Technical Support Center, EPA, Pub. No. EPA 815-B-97-001, Manual for the Certification of Laboratories Analyzing Drinking Water: Criteria and Procedures Quality Assurance (4th ed. March 1997).

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- D5 J.W. Munch and W.J. Bashe, EPA, Method 549.2: Determination of Diquat and Paraquat in Drinking Water by Liquid-Solid Extraction and High Performance Liquid Chromatography with Ultraviolet Detection (rev. 1 1997).
- D6 Anne M. Pawlecki-Vonderheide and David J. Munch, EPA, Method 515.3: Determination of Chlorinated Acids in Drinking Water by Liquid-Liquid Extraction, Derivatization and Gas Chromatography with Electron Capture Detection (rev. 1 July 1996).
- E 40 CFR Part 136 app. A (1998).
- E1 Office of Water Engineering and Analysis Division, EPA, Pub. No. EPA-821-R-93-010-A, Methods for the Determination of Nonconventional Pesticides in Municipal and Industrial Wastewater: Volume I (rev. 1 August 1993).
- F Office of Solid Waste and Emergency Response, EPA, Pub. No. SW-846, Test Methods for Evaluating Solid Waste (3rd ed. 1986 & Update I, July 1992; Update IIA, August 1993; Update II, September 1994; Update IIB, January 1995; Update III, December 1996).
- H Environmental Monitoring Systems Laboratory–Research Triangle Park, EPA, Pub. No. EPA-600/M4-82-020, Interim Method for the Determination of Asbestos in Bulk Insulation Samples (December 1982).
- H2 Kim A. Brackett et al., EPA, Pub. No. EPA/600/R-94/134, Method 100.2: Determination of Asbestos Structures over 10 µm in Length in Drinking Water (June 1994).
- J1 L.L. Thatcher et al., U.S. Department of the Interior, “Methods for Determination of Radioactive Substances in Water and Fluvial Sediments,” published in Techniques of Water-Resources Investigations of the United States Geological Survey at bk. 5, ch. A5 (3rd ed. 1989).
- K Division of State Laboratory Services, Arizona Department of Health Services, Method No. BLS-188, Ethylene Glycol in Waste Water (rev. April 1991); and Bureau of State Laboratory Services, Arizona Department of Health Services, C<sub>10</sub> - C<sub>32</sub> Hydrocarbons in Soil - 8015AZ (rev. 1.0 September 1998).
- K1 Office of Water, EPA, Pub. No. EPA-821-R-98-002, Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry (February 1999).
- K2 Office of Water, EPA, Pub. No. EPA-821-B-98-016, Analytical Methods for the Determination of Pollutants in Pharmaceutical Manufacturing Industry Wastewater (July 1998).
- M Environmental Monitoring Systems Laboratory–Cincinnati, EPA, Pub. No. EPA/600/4-90/027, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (4th ed. September 1991).
- M1 Environmental Monitoring Systems Laboratory–Cincinnati, EPA, Pub. No. EPA/600/4-90/027F, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (4th ed. August 1993).
- N Cornelius I. Weber et al., EPA, Pub. No. EPA/600/4-89/001, Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (2nd ed. March 1989); and Environmental Monitoring and Support Laboratory–Cincinnati, EPA, Pub. No. EPA/600/4-89/001a, Supplement to “Short-term Methods for Estimating the Chronic Toxicity of Effluents and Surface Waters to Freshwater Organisms,” (EPA/600/4-89/001) (rev. 1 September 1989).
- N1 Environmental Monitoring Systems Laboratory–Cincinnati, EPA, Pub. No. EPA-600-4-91-002, Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms (3rd ed. July 1994).
- P1 Jay Vasconcelos and Stephanie Harris, EPA, Pub. No. EPA 910/9-92-029, Consensus Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA) (October 1992).
- P2 G. Shay Fout et al., EPA, Pub. No. EPA/600/R-95/178, ICR Microbial Laboratory Manual (April 1996).
- P3 Charles P. Gerba, University of Arizona, UofA2000: *Ascaris lumbricoides* in Water (1999).
- S1 Center for Environmental Research Information, EPA, Pub. No. EPA/625/R-96/010b, Compendium Method TO-15: Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS) (January 1997).
- U Environmental Measurements Laboratory, U.S. Department of Energy, Pub. No. HASL-300, EML Procedures Manual, Vol. I (27th ed. rev. February 1992).

- X1 Bureau of Radiation and Inorganic Analytical Services, New Jersey Department of Environmental Protection, Determination of Ra-228 in Drinking Water (August 1990).
- Y Office of Water, EPA, Pub. No. EPA/821/R-99/013, Method OIA-1677: Available Cyanide by Flow Injection, Ligand Exchange, and Amperometry (January 2000).

**14. Was this rule previously adopted as an emergency rule?**

No

**15. The full text of the rules follows:**

**TITLE 9. HEALTH SERVICES**

**CHAPTER 14. DEPARTMENT OF HEALTH SERVICES LABORATORIES**

**ARTICLE 6. LICENSING OF ENVIRONMENTAL LABORATORIES**

- R9-14-601. Definitions
- R9-14-602. ~~License~~ Applicability
- R9-14-603. Initial ~~License~~ License Process
- R9-14-604. ~~License~~ Regular License Renewal Process
- R9-14-605. Compliance Monitoring
- ~~R9-14-605.~~ R9-14-606. Provisional License Licensing
- ~~R9-14-606.~~ R9-14-607. License fees Fees
- R9-14-608. Payment of Fees
- ~~R9-14-607.~~ R9-14-609. Proficiency Evaluation
- ~~R9-14-608.~~ R9-14-610. Approved Methods and References
- ~~R9-14-609.~~ R9-14-611. Drinking Water Sample ~~Matrix~~ Methods
- ~~R9-14-610.~~ R9-14-612. Wastewater Sample ~~Matrix~~ Methods
- ~~R9-14-611.~~ R9-14-613. Solid, Liquid, and Hazardous Waste Sample ~~Matrix~~ Methods
- ~~R9-14-612.~~ R9-14-614. Air Sample ~~Matrix~~ Methods
- ~~R9-14-613.~~ R9-14-615. Quality Assurance
- ~~R9-14-616. Laboratory Safety~~
- ~~R9-14-614.~~ R9-14-616. Operation
- ~~R9-14-615.~~ R9-14-617. Laboratory Records and Reports
- ~~R9-14-617.~~ R9-14-618. Mobile Laboratories
- ~~R9-14-618.~~ R9-14-619. Out-of-State Environmental Laboratory ~~License~~ Licensing
- R9-14-620. Time-frames
- Table 1. Time-frames (in days)

**ARTICLE 6. LICENSING OF ENVIRONMENTAL LABORATORIES**

**R9-14-601. Definitions**

Words and phrases defined in A.R.S. §§ 36-495 have the same meaning when used in these rules. In this Article, unless otherwise specified:

1. "ADEQ" means the Arizona Department of Environmental Quality.
2. "Approved method" means an analytical test method which is recognized by the Department as acceptable to test for the presence of the particular contaminant.
3. "Arizona Permit System for Aquifer Protection" means the permit system specified in A.R.S. §§ 49-241 through 49-251.
4. "Arizona Permit System for Reuse of Wastewater" means the permit system specified in A.R.S. §§ 49-104 and 49-250.
5. "Blind proficiency evaluation audit" means that the Department submits a series of proficiency evaluation samples to a laboratory in such a manner that the laboratory is unaware that it is testing a proficiency evaluation sample.
6. "Categories" of laboratory testing means drinking water, wastewater, hazardous waste, or air.
7. "Clean Air Act" means 42 U.S.C.A. 7401-7642.
8. "Clean Water Act" means 33 U.S.C.A. 1251-1376.
9. "Comprehensive Environmental Response, Compensation and Liability Act" means 42 U.S.C.A. 9601-9657, commonly referred to as the Superfund Act.
10. "Contiguous grounds" means real property which can be enclosed by a single unbroken boundary line which does not enclose property owned or leased by others.
11. "Effluent" means an outflow, as of a stream which flows out of a facility.

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12. ~~“Environmental water laboratory” means a laboratory that holds a valid license issued by the Department prior to the effective date of this Article.~~
13. ~~“EPA” means the United States Environmental Protection Agency.~~
14. ~~“Federal Insecticide Fungicide and Rodenticide Act” means 7 U.S.C.A. 136-136y.~~
15. ~~“Intercomparison studies” means the proficiency evaluation service for radiochemical samples established by EPA’s Environmental Monitoring Systems Laboratory.~~
16. ~~“Licensure” means the approval by the Department of a laboratory to perform compliance testing for environmental monitoring programs, categories of laboratory testing, parameters of laboratory testing and approved methods of laboratory testing as defined in A.R.S. § 36-495.03 through A.R.S. § 36-495.16 and this Article.~~
17. ~~“Parameter” means 1 of a set of chemical, physical, radiochemical, microbiological, or biological properties whose value determines the characteristics of an environmental sample.~~
18. ~~“Proficiency evaluation audit” means an audit conducted by a service on a series of samples submitted to a laboratory for use in evaluating the laboratory’s ability to correctly analyze compliance testing samples.~~
19. ~~“Proficiency evaluation service” means the Department, EPA, or an independent service acceptable to the Department which provides proficiency evaluation audit samples and evaluates the results of the proficiency evaluation audit.~~
20. ~~“Principal State Laboratory System” means the system which includes the Department, Division of State Laboratory Services, and the Radiation Regulatory Agency Laboratory, which are certified by EPA.~~
21. ~~“Radiation assessment proficiency evaluation audit” means any proficiency evaluation audit required by EPA under the Safe Drinking Water Act for radiochemistry testing.~~
22. ~~“Resource Conservation and Recovery Act” means 42 U.S.C.A. 6921-6939B.~~
23. ~~“Safe Drinking Water Act” means 42 U.S.C.A. 300f-300j-11.~~
24. ~~“Single Method” means the approved method licensure fee for any single method listed in that subsection.~~
25. ~~“U.S.C.A.” means *United States Code Annotated*.~~
26. ~~“Water pollution proficiency evaluation audit” means any proficiency evaluation audit established by the EPA under the Clean Water Act.~~
27. ~~“Water supply study audit” means any proficiency evaluation audit required by the EPA under the Safe Drinking Water Act.~~

In addition to the definitions in A.R.S. § 36-495, the following definitions apply in this Article, unless otherwise specified:

1. “Acceptance criteria” means the range of satisfactory test results for a parameter.
2. “ADEQ” means the Arizona Department of Environmental Quality.
3. “Affiliate” means a business organization that:
  - a. Controls or has the power to control the business organization that owns the laboratory.
  - b. Is controlled by or could be controlled by the business organization that owns the laboratory, or
  - c. Could be controlled by a 3rd business organization that could also control the business organization that owns the laboratory.
4. “Alternate method” means an analytical test procedure or technique not listed by parameter in A.A.C. R9-14-611 through R9-14-614, but approved by the Department following the procedures in A.A.C. R9-14-610(B).
5. “Analyst” means an individual who performs compliance testing at a laboratory.
6. “Applicant” means the following individual or individuals requesting a license on behalf of a business organization that owns a laboratory:
  - a. If the laboratory is owned by a sole proprietor, the individual owning the laboratory;
  - b. If the laboratory is owned by an unincorporated association, any 2 individuals who together own a majority interest in the laboratory;
  - c. If the laboratory is owned by a corporation, any 2 officers of the corporation;
  - d. If the laboratory is owned by a limited liability company, the designated manager or, if no manager is designated, any 2 members of the limited liability company;
  - e. If the laboratory is owned by a partnership, any 2 of the partners; or
  - f. If the laboratory is owned by a governmental entity, the designated director of the laboratory.
7. “Approved method” means an analytical test procedure or technique authorized by the Department to test for the presence of a particular contaminant.
8. “ASTM” means American Society for Testing and Materials.
9. “Blind proficiency evaluation audit” means the Department’s determination of a laboratory’s ability to analyze samples correctly, accomplished by submitting samples for testing in such a manner that the laboratory is not aware that they are test samples.
10. “BLS” means Bureau of State Laboratory Services.
11. “Business organization” means an entity such as a sole proprietorship, an unincorporated association, a corporation, a limited liability company, a partnership, or a governmental entity.

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12. “Classification Level I license” means an approval issued by the Department to a laboratory authorizing compliance testing of 1 to 9 total parameters.
13. “Classification Level II license” means an approval issued by the Department to a laboratory authorizing compliance testing of 10 to 17 total parameters.
14. “Classification Level III license” means an approval issued by the Department to a laboratory authorizing compliance testing of more than 17 total parameters.
15. “Client” means an individual or a business organization that submits a sample to a laboratory for compliance testing.
16. “Contaminant” means a matter, pollutant, hazardous substance, or other substance for which a sample is being tested.
17. “Contiguous grounds” means real property that can be enclosed by a single unbroken boundary line that does not enclose property owned or leased by another.
18. “Critical step” means an event in the testing procedure that is required to be performed within a specified time period by regulation, method, standard operating procedure, or quality assurance plan.
19. “Data outlier” means a test result that falls outside of acceptance criteria.
20. “Days” means calendar days, excluding the day of the act, event, or default from which a designated period of time begins to run and excluding the last day of the period if it is a Saturday, a Sunday, or a legal holiday, in which event the period runs until the end of the next day that is not a Saturday, a Sunday, or a legal holiday.
21. “Effluent” means an outflow, as of a stream that flows out of a facility.
22. “EPA” means the United States Environmental Protection Agency.
23. “Initial Demonstration of Capability” means a test performed by an analyst, as prescribed by a method, to document the analyst’s ability to perform the method at the laboratory.
24. “Investigation” means an evaluation of laboratory compliance conducted by the Department upon its own initiative or upon receipt of a written complaint.
25. “Laboratory inspection” means the Department’s initial or annual assessment of a laboratory’s operations to determine compliance.
26. “Licensee” means a person or persons to whom the Department issues a license to operate a laboratory.
27. “Method” means an analytical test procedure or technique.
28. “Method detection limit” means the minimum concentration of a contaminant that can be measured and reported with 99% confidence that the concentration of the contaminant is greater than 0, determined from analyzing a sample in a given parameter as prescribed by the individual method or by 40 CFR Part 136 app. B (1998), which is incorporated by reference and on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments.
29. “Method reporting limit” means the minimum concentration of a contaminant that a laboratory routinely reports after analyzing a sample in a given parameter.
30. “Mobile laboratory” means a non-stationary facility where analysts test samples.
31. “Parameter” means the combination of a particular type of sample with a particular test method by which the sample will be analyzed for a particular contaminant.
32. “Proficiency evaluation audit” means a proficiency evaluation service’s determination of a laboratory’s ability to analyze samples correctly, accomplished by submitting samples to the laboratory for testing and then analyzing the acceptability of the laboratory’s results.
33. “Proficiency evaluation service” means the Department, the EPA, or an independent service acceptable to the Department.
34. “Principal State Laboratory System” means the Department, the Bureau of State Laboratory Services, and the Radiation Regulatory Agency Laboratory.
35. “Quality control checks” means the steps taken by a laboratory to monitor the accuracy and precision of its analysis of samples.
36. “RDX” means Hexahydro-1,3,5-trinitro-1,3,5-triazine.
37. “Records” means all written, recorded, and electronic documentation necessary to reconstruct all laboratory activities that produce data and includes all information relating to the laboratory’s equipment, analytical test methods, and related activities.
38. “Sample” means a specimen that is a representative part of a whole or a single item from a group.
39. “Single laboratory” means an individual laboratory facility or multiple laboratory facilities located on contiguous grounds and owned by the same person.
40. “Small business” means a business organization, including its affiliates, that is independently owned and operated, that is not dominant in its field, and that employs fewer than 100 full-time employees or had gross annual receipts of less than \$4 million in its last fiscal year.
41. “Standard operating procedure” means the reduction to writing of a laboratory’s method for carrying on business, analysis, or action, with techniques and procedures for performing routine or repetitive tasks.

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42. “Statistical outlier” means an individual data point that has a value far from those of the other data points in a set and that has been determined through statistical analysis to have derived from a different population than the other data points.

**R9-14-602. License Applicability**

- ~~A.~~ This Article ~~shall does~~ not apply to ~~compliance testing of those laboratories and parameters as outlined in~~ exempted by A.R.S. §§ 36-495.02.A.3; § 36-495.02(A) or to
- ~~B.~~ This Article ~~shall not apply to laboratory compliance testing which is performed pursuant to~~ under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §§ 136-136y.

**R9-14-603. Initial ~~Licensure~~ License Process**

- ~~A.~~ To ~~obtain a license the laboratory shall file a complete application on a form provided by the Department pursuant to~~ A.R.S. § 36-495.03 (A) and (B), and submit payment of all applicable fees to the Department pursuant to R9-14-606.
- ~~B.~~ Multiple laboratories ~~located on contiguous grounds and under the same ownership may be licensed under a single license.~~
- ~~C.~~ Multiple laboratories, including mobile laboratories located on non-contiguous grounds and under the same ownership may be licensed independently or under a single license at the owner's discretion. If the laboratory chooses the single license option, each nonmobile laboratory shall be located within Arizona and each mobile laboratory shall maintain Arizona vehicle registration.
- ~~D.~~ An application for licensure shall be made for any of the approved methods contained in R9-14-608 and R9-14-609 through R9-14-612 for compliance testing required by ADEQ; the Clean Air Act; the Clean Water Act; the Comprehensive Environmental Response, Compensation and Liability Act; the Resource Conservation and Recovery Act; the Safe Drinking Water Act; or the Toxic Substance Control Act.
- ~~E.~~ The Department shall determine if the application is complete and mail notification to the applicant with a detailed list of deficiencies if incomplete within 3 weeks from receipt of the application and fees. An application is not complete without payment of all applicable fees. Upon receipt of a complete application, the Department shall schedule a laboratory inspection, proficiency evaluation audit, or both, no longer than 1 month later for an in-state lab and 2 months later for an out-of-state lab. The Department and applicant may mutually agree to extend the inspection date.
- ~~F.~~ The Department may grant a temporary license for all sample matrices except drinking water, to an out-of-state laboratory, before an on-site inspection occurs, provided:
  - 1. The laboratory has submitted a complete application;
  - 2. The laboratory has provided successful proficiency evaluation results from current EPA studies or 3rd party proficiency evaluation audits, and
  - 3. The laboratory has provided current certification information for comparable testing from another state certification program.
- ~~G.~~ The Department shall provide the laboratory director with a written report of findings of compliance with A.R.S. Title 36, Chapter 4.3, Article 1 and this Article, within 6 weeks from the completion of any inspection, investigation, or proficiency evaluation audit.
- ~~H.~~ If the laboratory is not in compliance:
  - 1. Within 3 weeks from receipt of a report of noncompliance, the laboratory shall submit a written corrective action plan acceptable to the Department with corrective action and completion dates no longer than 4 months from the date the laboratory receives the written report of noncompliance.
  - 2. Within 6 weeks of receipt of the laboratory's plan of corrective action, the Department shall provide the laboratory with a written approval or disapproval.
  - 3. If the laboratory's plan of corrective action is disapproved by the Department, the laboratory shall submit a new corrective action plan for the items which the Department has disapproved within 3 weeks from receipt of the Department's written disapproval.
  - 4. Within 3 weeks of receipt of the laboratory's revised corrective action plan, the Department shall provide the laboratory with a written approval or disapproval of the revised plan.
- ~~I.~~ The Department will send written notification of approval or denial of an application within 9 months for an in-state lab and 10 months for an out-of-state lab. Denials shall set forth the reasons for denial and all other information required under A.R.S. § 41-1076.
- ~~J.~~ This Section shall apply to a laboratory not currently licensed in Arizona until either of the following occurs:
  - 1. The laboratory owner or operator is issued a laboratory license pursuant to this Article, or
  - 2. The laboratory owner or operator is notified of the Department's intent to deny a laboratory license.
- ~~K.~~ Notification by the Department of issuance or denial of a license shall not exceed 9 months for in-state labs, and 10 months for out-of-state labs from the date that the Department determined that the application was complete. Completeness review is 3 weeks. The overall time frame is 9 months and 3 weeks for in-state labs and 10 months and 3 weeks for out-of-state labs.

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- ~~L.~~ For the purpose of computing time frames in this Section intermediate Saturdays, Sundays, and legal holidays shall be included in the computation. The last day of the time period will be included unless it is a Saturday, Sunday, or legal holiday.
- A.** To obtain a license, an applicant shall submit to the Department a completed application on a form provided by the Department. The application shall comply with A.R.S. § 36-495.03(A)-(B). An applicant shall submit to the Department the appropriate application fee or fees along with the completed application form.
- B.** An applicant shall submit the following information on the application form:
  - 1. The name of the laboratory;
  - 2. The physical and mailing address of the laboratory;
  - 3. The name and address of each individual and business organization that has an ownership interest in the laboratory;
  - 4. For each business organization with an ownership interest in the laboratory, the name of each officer, principal, and statutory agent;
  - 5. The name of the individual directing the laboratory;
  - 6. The classification level for which applied;
  - 7. Whether the applicant is applying for a single laboratory or multiple laboratories;
  - 8. If the applicant is applying for a mobile laboratory, the vehicle make, vehicle identification number, and Arizona vehicle license number of the laboratory;
  - 9. If the applicant is applying for a mobile laboratory that is affiliated with a non-mobile laboratory, the name of the non-mobile laboratory;
  - 10. The name, title, and educational background of each individual authorized to sign final reports for the laboratory;
  - 11. A list of the references and methods for which the applicant is requesting a license;
  - 12. A list of the instruments and equipment that the laboratory will use for compliance testing;
  - 13. A list of the software that the laboratory will use for instrument control and data reduction interpretation;
  - 14. If the applicant is applying for an out-of-state laboratory, whether the applicant wants the laboratory to receive technical updates by facsimile transmission or through the Internet;
  - 15. If the applicant is applying as a small business for a private laboratory and wants to pay method, instrument, and proficiency evaluation fees in installments, the applicant shall provide the following information:
    - a. A list of the affiliates of the business organization that owns the laboratory;
    - b. The relationship between each affiliate and the business organization that owns the laboratory;
    - c. Whether the laboratory is independently owned and operated;
    - d. The type of business organization that owns the laboratory;
    - e. If the business organization that owns the laboratory is a corporation, whether the stock of the corporation or any of its affiliates is publicly traded;
    - f. The number of individuals employed full-time by the business organization that owns the laboratory;
    - g. The number of individuals employed full-time by each affiliate of the business organization that owns the laboratory;
    - h. Whether the gross annual receipts of the business organization that owns the laboratory were less than or greater than or equal to \$4,000,000 in the last fiscal year;
    - i. Whether the combined gross annual receipts of the affiliates of the business organization that owns the laboratory were less than or greater than or equal to \$4,000,000 in the last fiscal year; and
    - j. Whether the business organization that owns the laboratory is dominant in its field; and
  - 16. A notarized statement by the applicant and the director of the laboratory verifying the information on the application.
- C.** The application may include an agreement between the applicant and the Department that the Department may submit supplemental requests for additional information.
- D.** Multiple laboratories located on contiguous grounds and owned by the same person may be:
  - 1. Licensed as a single laboratory, or
  - 2. Licensed separately if the applicant submits an application and an application fee as required by A.A.C. R9-14-607(A) for each laboratory.
- E.** Multiple laboratories, including mobile laboratories, located on noncontiguous grounds and owned by the same person may be:
  - 1. Licensed separately, or
  - 2. Operated under a single license if:
    - a. The applicant submits an application and an application fee as required by A.A.C. R9-14-607(B) for each laboratory,
    - b. Each non-mobile laboratory is located in Arizona, and
    - c. Each mobile laboratory maintains an Arizona vehicle registration.
- F.** An application is not complete without payment of the appropriate application fee or fees and payment of the amount billed under A.A.C. R9-14-608(C).

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**R9-14-604. ~~Licensure Regular License Renewal Process~~**

- ~~A. At least 1 month prior to the expiration of its current license, a laboratory must submit to the Department, a complete application and payment of all applicable fees prescribed in A.A.C. R9-14-606.~~
- ~~B. The Department shall notify the laboratory director of any deficiency in the application and payment of fees within 3 weeks from the receipt of the application and fees. If the application is complete and proper fees are submitted, the Department shall renew a laboratory license, unless the Director determines pursuant to A.R.S. § 36-495.09 that grounds exist to deny the license.~~
- ~~C. The Department may grant a temporary license to a laboratory with an existing laboratory license, if the laboratory is moving to a new location. The Department shall not grant the temporary license to such laboratories if the owner or director is also changed.~~
- ~~D. The Department may conduct a laboratory inspection or proficiency evaluation audit, or both, at any time during the licensure period.~~
- ~~E. The Department shall provide the laboratory director with a written report of findings within 6 weeks from the completion of any inspection, investigation, or proficiency evaluation audit.~~
- ~~F. A licensed laboratory that cannot demonstrate compliance with this Article, shall submit to the Department within 6 weeks from the date the laboratory receives the written report of findings, a written plan to correct deficiencies listed in the written report of findings with corrective action and completion dates acceptable to the Department.~~
- ~~G. The Department shall provide the laboratory with a written response within 6 weeks of receipt of the laboratory's plan of corrective action to the Department's written report of findings.~~
- A. To renew a regular license, an applicant shall submit to the Department an application completed on the same type of form used for an initial license. An applicant shall submit to the Department the appropriate application fee or fees along with the completed application form.
- B. If the applicant is applying for an in-state laboratory, the applicant shall submit the completed application at least 30 days before expiration of the current license.
- C. If the applicant is applying for an out-of-state laboratory, the applicant shall submit the completed application at least 60 days before expiration of the current license.
- D. An application is not complete without payment of the appropriate application fee or fees and payment of the amount billed under A.A.C. R9-14-608(C).

**R9-14-605. Compliance Monitoring**

- A. The Department shall conduct a laboratory inspection and may conduct an investigation or proficiency evaluation audit, or both, of an applicant's laboratory as part of the substantive review for an initial license.
  - 1. The Department shall commence the laboratory inspection, investigation, or proficiency evaluation audit, or combination of the 3, no more than 30 days after notice of administrative completeness has been mailed for an in-state laboratory or no more than 60 days after notice of administrative completeness has been mailed for an out-of-state laboratory.
  - 2. The Department and applicant may mutually agree in writing to extend the laboratory inspection, investigation, or proficiency evaluation audit dates.
- B. The Department may conduct a laboratory inspection, investigation, or proficiency evaluation audit, or any combination of the 3, of a licensee's or applicant's laboratory at any other time before or during the license period.
- C. The Department shall comply with A.R.S. § 41-1009 in conducting laboratory inspections and investigations that occur at a laboratory.
- D. If the Department determines based on a laboratory inspection, investigation, or proficiency evaluation audit, or any combination of the 3, that a laboratory is not in compliance with A.R.S. Title 36, Chapter 4.3 and this Article, the Department shall request that the licensee or applicant submit to the Department a written corrective action plan, unless the Department determines 1 of the following, in which case the Department shall take action under A.R.S. § 36-495.09:
  - 1. That the deficiencies were committed intentionally;
  - 2. That the deficiencies cannot be corrected within a reasonable period of time;
  - 3. That the deficiencies are evidence of a pattern of noncompliance;
  - 4. That the deficiencies are a risk to any person; the public health, safety, or welfare; or the environment; or
  - 5. That there is a reasonable belief, as stated in A.R.S. § 36-495.09(B), that a violation of A.R.S. § 36-495.09(A)(5) has occurred and that the life or safety of the public is immediately affected.
- E. A corrective action plan shall be in writing and shall include the corrective action that will be taken and the date by which corrective action will be completed, which cannot be more than 120 days after the date that the Department requested the corrective action plan.
  - 1. A licensee shall submit a corrective action plan to the Department within 45 days from the date that the Department requested the corrective action plan.
  - 2. An applicant shall submit a corrective action plan to the Department within 28 days from the date that the Department requested the corrective action plan.

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- F.** If the Department disapproves a corrective action plan, the Department shall send to the licensee or applicant a written notice of disapproval requesting that the licensee or applicant submit to the Department a revised corrective action plan for the items that the Department disapproved.
  - 1. A licensee or an applicant shall submit the revised corrective action plan to the Department within 21 days from the date of the written notice of disapproval.
  - 2. If a licensee or an applicant does not submit a revised corrective action plan within 21 days from the date of the written notice of disapproval, the Department may deny the application or take any other action authorized by law.
- G.** A licensee or an applicant shall notify the Department when corrective action has been completed.
- H.** The Department shall determine if a laboratory is in substantial compliance with A.R.S. Title 36, Chapter 4.3 and this Article within 30 days of notification that the corrective action has been completed. If the Department determines that the licensee or applicant has not corrected the deficiencies or that the licensee or applicant has not corrected the deficiencies within a reasonable period of time, the Department may take any enforcement action authorized by law as a result of the deficiencies.
- I.** Under A.R.S. § 41-1009(G), the Department's decision regarding whether a licensee or an applicant may submit a corrective action plan to correct deficiencies identified in a laboratory inspection or investigation at the laboratory or whether these deficiencies have been corrected or have not been corrected within a reasonable period of time is not an appealable agency action as defined by A.R.S. § 41-1092.

**R9-14-605 R9-14-606. Provisional Licensure Licensing**

- A.** The Department may issue a provisional license to a licensee when ~~its~~ the Department suspends the licensee's regular license because of deficiencies identified in an investigation, laboratory inspection, or proficiency evaluation audit ~~identifies~~ deficiencies, but the number and nature of deficiencies do not pose a risk to public health, safety, or the environment.
- B.** The Department may issue a provisional license for any of the following reasons:
  - 1. The laboratory does not adhere to the applicable references in R9-14-608 or the requirements for facilities, equipment, reagents, quality control practices, or approved methods appropriate to the sample matrix as listed in R9-14-609 through R9-14-612;
  - 2. The laboratory fails to participate in a proficiency evaluation audit and submit results within the acceptance limits or the time frames established by the proficiency evaluation service;
  - 3. Two consecutive proficiency evaluation audit reports have the same parameter deemed outside acceptance limits by a proficiency evaluation service; or
  - 4. The laboratory fails to submit a written corrective action report to the Department within 6 weeks of the receipt of proficiency evaluation audit results that are deemed outside acceptable limits.
- ~~CB.~~** The Department shall issue an amended certified list of parameters for ~~the~~ a provisional license.
- ~~DC.~~** The ~~A~~ licensee shall return its regular license to the Department within ~~40 working~~ 14 days from the date of receipt of written notification ~~that the Department issued a provisional license of the license suspension.~~
- ~~ED.~~** A provisional license ~~shall be~~ is valid for a set period established by the Department, not to exceed ~~the expiration date of the laboratory's suspended license~~ 12 months.
- ~~FE.~~** A laboratory ~~A licensee~~ with a provisional license ~~may~~ who desires to renew ~~its~~ the laboratory's regular license ~~provided that it applies~~ shall apply for renewal at least 6 weeks prior to the 30 days before expiration of ~~its~~ the provisional license. At such time, ~~the~~ The Department shall issue to the laboratory a regular renewed license renewal ; unless the Director determines pursuant to A.R.S. § 36-495.09 that grounds exist to revoke the license the licensee is not in full compliance with the corrective action plan; A.R.S. Title 36, Chapter 4.3; and this Article.
- F.** The Department shall not issue a provisional license to an applicant for an initial license.

**R9-14-606 R9-14-607. Licensure fees Fees**

- A.** Each laboratory applying for a license shall pay to the Department, at the time of application, a nonrefundable application fee except as required by A.R.S. § 41-1077, in U.S. dollars, dependent upon the following laboratory license classifications: An applicant applying for a single license for a single laboratory shall submit to the Department, at the time of application, the following non-refundable application fee:

1. <u>For a classification</u> Level I <u>—A license for compliance testing is limited to 1 to 9 total parameters in any combination of categories of laboratory testing- license:</u>	<u>\$1,000.00</u> <u>\$1,300.00</u>
2. <u>For a classification</u> Level II <u>—A license for compliance testing is limited to 10 to 17 total parameters in any combination of categories of laboratory testing- license:</u>	<u>\$1,270.00</u> <u>\$1,651.00</u>
3. <u>For a classification</u> Level III <u>—A license for compliance testing for greater than 17 total parameters in any combination of categories of laboratory testing- license:</u>	<u>\$1,400.00</u> <u>\$1,820.00</u>

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**B. ~~Multiple laboratories~~ An applicant applying under the for a single license option for multiple laboratories not on contiguous grounds shall pay submit to the Department, at the time of application, a non-refundable application fee, ~~except as required by A.R.S. § 41-1077, for each noncontiguous laboratory, as outlined in R9-14-603, dependent upon the following laboratory license classifications as follows:~~**

- |   |   |
|---|---|
| 1. <del>For a classification</del> <u>Level I –license:</u>   | <del>\$860.00</del> <u>\$1,118.00</u>   |
| 2. <del>For a classification</del> <u>Level II –license:</u>  | <del>\$1,130.00</del> <u>\$1,469.00</u> |
| 3. <del>For a classification</del> <u>Level III –license:</u> | <del>\$1,270.00</del> <u>\$1,651.00</u> |

**C. ~~Concurrently with the licensure application fee, the applicant~~ A licensee or an applicant shall pay submit to the Department a non-refundable fee, except as required by A.R.S. § 41-1077, for licensure of licensing each approved methods method, alternate method, and associated instrumentation calculated by the Department instrument requested on the application or during the license period, as follows:**

- |   |   |
|---|---|
| 1. Microbiology Testing Fees  |   |
| a) <sub>2</sub> Total coliform:   |   |
| i. Most Probable Number   | <del>\$136.00</del> <u>\$177.00</u>   |
| ii. Membrane filtration   | <del>136.00</del> <u>177.00</u>   |
| iii. <del>MMO-MUG (Colilert or Colisure only)</del>   | <del>91.00</del> <u>118.00</u>  |
| iv. <u>Colisure</u>   | <u>118.00</u>   |
| v. Presence-Absence   | <del>136.00</del> <u>177.00</u>   |
| b) <sub>2</sub> Fecal coliform:   |   |
| i. Most Probable Number   | <del>136.00</del> <u>177.00</u>   |
| ii. Membrane filtration   | <del>136.00</del> <u>177.00</u>   |
| c) <sub>2</sub> Fecal streptococcus:  |   |
| i. Most Probable Number   | <del>136.00</del> <u>177.00</u>   |
| ii. Membrane filtration   | <del>136.00</del> <u>177.00</u>   |
| d. Salmonella   | <del>136.00</del> <u>177.00</u>   |
| e. Heterotrophic plate count  | <del>91.00</del> <u>118.00</u>  |
| f. Any 1 approved method in each group for total coliform, fecal coliform, fecal streptococcus, Salmonella, and heterotrophic plate count.  | <del>408.00</del> <u>530.00</u>   |
| g. Any combination of approved methods for total coliform, fecal coliform, fecal streptococcus, Salmonella, and heterotrophic plate count.  | <del>725.00</del> <u>943.00</u>   |
| h. Viruses  | <del>227.00</del> <u>295.00</u>   |
| i. Parasites  | <del>227.00</del> <u>295.00</u>   |
| j. <u>Microscopic Particulate Analysis</u>  | <u>199.00</u>   |
| 2. Bioassay   |   |
| Any combination of methods for estimating the chronic and acute toxicity of effluents and waters to fresh water organisms.  | <del>\$544.00</del> <u>\$707.00</u>   |
| 3. Demand   |   |
| a. Biochemical Oxygen Demand  | <del>\$91.00</del> <u>\$118.00</u>  |
| b. Chemical Oxygen Demand   | <del>91.00</del> <u>118.00</u>  |
| 4. Inorganic Chemistry - Metals   |   |
| a) <sub>2</sub> Flame atomic absorption ( <del>FAA</del> ) approved methods.  |   |
| i. Each metal for which the laboratory applies using any single <del>FAA</del> <u>flame atomic absorption</u> approved method from any single approved method reference.                                | <del>\$15.00</del> <u>\$20.00</u><br>each, up to a maximum of <del>\$295.00</del> <u>\$384.00</u> |
| ii. Each metal for which the laboratory applies using any combination of <del>FAA</del> <u>flame atomic absorption</u> approved methods from any combination of approved method references.             | <del>\$24.00</del> <u>\$31.00</u><br>each, up to a maximum of <del>\$468.00</del> <u>\$608.00</u> |
| b) <sub>2</sub> Electrothermal graphite furnace atomic absorption ( <del>GFAA</del> ) approved methods.   |   |
| i. Each metal for which the laboratory applies using any single <del>GFAA</del> <u>graphite furnace atomic absorption</u> approved method from any single approved method reference.                    | <del>\$15.00</del> <u>\$20.00</u><br>each, up to a maximum of <del>\$272.00</del> <u>\$354.00</u> |
| ii. Each metal for which the laboratory applies using any combination of <del>GFAA</del> <u>graphite furnace atomic absorption</u> approved methods from any combination of approved method references. | <del>\$24.00</del> <u>\$31.00</u><br>each, up to a maximum of <del>\$435.00</del> <u>\$566.00</u> |
| c) <sub>2</sub> <del>Inductively Coupled Plasma (ICP)</del> <u>coupled plasma</u> emission spectrometer approved methods.   |   |

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i.	Each metal for which the laboratory applies using any single <del>ICP</del> <u>inductively coupled plasma</u> approved method from any single approved method reference.	\$12.00 <del>\$16.00</del> each, up to a maximum of <del>\$260.00</del> <u>\$338.00</u>
ii.	Each metal for which the laboratory applies using any combination of <del>ICP</del> <u>inductively coupled plasma</u> approved methods from any combination of approved method references.	\$18.00 <del>\$23.00</del> each, up to a maximum of <del>\$390.00</del> <u>\$507.00</u>
d) <sub>2</sub>	<del>Inductively Coupled Plasma/Mass Spectrometer (ICP/MS)</del> <u>coupled plasma/mass spectrometer</u> approved methods. Each metal for which the laboratory applies using any <del>ICP/MS</del> <u>inductively coupled plasma/mass spectrometer</u> approved method from any approved method reference.	\$18.00 <del>\$23.00</del> each, up to a maximum of <del>\$390.00</del> <u>\$507.00</u>
e) <sub>2</sub>	Colorimetric metal testing approved methods. Each colorimetric approved method for which the laboratory applies.	\$45.00 <del>\$59.00</del>
f) <sub>2</sub>	Mercury cold vapor approved methods.	
i.	Any single mercury cold vapor approved method from any single approved method reference for which the laboratory applies.	\$91.00 <del>\$118.00</del>
ii.	Any combination of mercury cold vapor approved methods from any combination of approved method references for which the laboratory applies.	\$136.00 <del>\$177.00</del>
g) <sub>2</sub>	Metals by hydride generation approved methods. Each hydride metal for any approved <del>method from</del> <u>method from</u> any approved method reference for which the laboratory applies.	\$45.00 <del>\$59.00</del> each, up to a maximum of <del>\$68.00</del> <u>\$88.00</u>
5. Inorganic Chemistry - Nonmetals		
a) <sub>2</sub>	Nonmetals Group IA	
i.	<del>Total</del> Alkalinity	\$23.00 <del>\$30.00</del>
ii.	Chloride	23.00 <del>30.00</del>
iii.	Chlorine	23.00 <del>30.00</del>
iv.	Chlorine dioxide	23.00 <del>30.00</del>
v.	Color	23.00 <del>30.00</del>
vi.	Hardness (as <del>CaCO<sub>3</sub></del> <u>CaCO<sub>3</sub></u> )	23.00 <del>30.00</del>
vii.	Hydrogen ion (pH)	23.00 <del>30.00</del>
viii.	Ozone	23.00 <del>30.00</del>
ix.	Specific conductance	23.00 <del>30.00</del>
x.	Total Dissolved Solids (Filterable Residue)	23.00 <del>30.00</del>
xi.	Turbidity	23.00 <del>30.00</del>
b) <sub>2</sub>	Nonmetals Group IB	
i.	Nitrate	\$45.00 <del>\$59.00</del>
ii.	Sulfate	45.00 <del>59.00</del>
iii.	Fluoride	45.00 <del>59.00</del>
iv.	Sodium Azide	45.00 <del>59.00</del>
v.	Sodium/Potassium Perchlorate	45.00 <del>59.00</del>
c) <sub>2</sub>	Maximum for any combination of Nonmetals Group IA and IB for the 1st approved method for which the laboratory applies.	\$255.00 <del>\$332.00</del>
d) <sub>2</sub>	Each additional Nonmetals Group IA approved method for which the laboratory applies.	\$11.00 <del>\$14.00</del>
e) <sub>2</sub>	Each additional Nonmetals Group IB approved method for which the laboratory applies.	\$23.00 <del>\$30.00</del>
f) <sub>2</sub>	Nonmetals Group IIA	
i.	Acidity	\$23.00 <del>\$30.00</del>
ii.	Total Hardness	23.00 <del>30.00</del>
iii.	Surfactants	23.00 <del>30.00</del>
iv.	Total Residue	23.00 <del>30.00</del>
v.	Nonfilterable Residue	23.00 <del>30.00</del>
vi.	Settleable Residue	23.00 <del>30.00</del>
vii.	Volatile Residue	23.00 <del>30.00</del>
g) <sub>2</sub>	Nonmetals Group IIB	
i.	Ammonia	\$45.00 <del>\$59.00</del>
ii.	Bromide	45.00 <del>59.00</del>
iii.	<del>Total</del> Kjeldahl Nitrogen	45.00 <del>59.00</del>

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iv.	Nitrite		45.00	59.00
v.	Orthophosphate		45.00	59.00
vi.	<del>Total</del> Phosphorus		45.00	59.00
h <sub>2</sub>	Maximum for any combination of Nonmetals Group IIA and IIB for the 1st approved method for which the laboratory applies.		340.00	5442.00
i <sub>2</sub>	Each additional Nonmetals Group IIA approved method for which the laboratory applies.		\$41.00	\$14.00
j <sub>2</sub>	Each additional Nonmetals Group IIB approved method for which the laboratory applies.		\$23.00	\$30.00
k <sub>2</sub>	Ion chromatograph approved methods. Each ion for which the laboratory applies using any <del>ion chromatograph</del> approved method from any approved method reference.		\$20.00	\$26.00
			each, up to a maximum of \$200.00	\$260.00
6.	Major Analytical Chemistry Instruments			
a.	Each Gas Chromatograph ( <del>GC</del> ) instrument.		\$45.00	\$59.00
b.	Each Gas Chromatograph/Mass Spectrometer ( <del>GC/MS</del> ) instrument.		91.00	\$118.00
c.	Each Atomic Absorption Spectrometer instrument.		45.00	\$59.00
d.	Each Inductively Coupled Plasma Atomic Emission Spectrometer instrument.		45.00	\$59.00
e.	Each Inductively Coupled Plasma Atomic Emission Spectrometer/Mass Spectrometer <del>Instrument instrument</del> .		91.00	\$118.00
f.	Each High Performance Liquid Chromatograph instrument.		45.00	\$59.00
g.	Each High Performance Liquid Chromatograph/Mass Spectrometer instrument.		91.00	\$118.00
h.	Each Ion Chromatograph instrument.		45.00	\$59.00
i.	Each Total Organic Halide ( <del>TOX</del> ) instrument.		45.00	\$59.00
j.	Each Transmission Electron Microscope ( <del>TEM</del> ).		182.00	\$237.00
k.	Each X-Ray Diffraction instrument.			\$59.00
7.	Volatile Organic Chemistry			
	<del>Purgeable Organic GC and GC/MS approved methods.</del>	Single Method		Combination
a.	Volatile Organics by <del>GC</del> by EPA Methods 502.2, 8021A, 8021B	\$91.00	\$118.00	\$136.00
b.	Purgeable Halocarbons by EPA <del>Methods</del> Method 601 and 8010B	45.00	59.00	68.00
c.	Total Trihalomethanes ( <del>THM</del> ) by EPA Methods 502.2, 524.2, <del>551</del> 551.1	45.00	59.00	91.00
	Maximum Trihalomethane Potential (MTP) 510.1			45.00
d.	Purgeable Aromatics by EPA Methods 602, <del>8015A, 8015M, 8020A</del> 8015B	45.00	59.00	91.00
e.	Fuel Class Hydrocarbons by <del>BLS Method 191</del> 8015AZ	45.00	59.00	
	<del>Halogenated and Aromatic Volatiles by EPA Method 8021A</del>		91.00	
f.	Acrolein, Acrylonitrile, and Acetonitrile by EPA Methods 603, 8031, <del>8032</del> 8032A, 8033, <del>8316</del>	45.00	59.00	68.00
g.	Acrylamide, Acrylonitrile, and Acrolein by EPA Method 8316		59.00	
h.	Purgeables by <del>GC/MS</del> by EPA Methods 524.2, 624, 1624, <del>8260A</del> 8260B	91.00	118.00	181.00
8.	Semivolatile Organic Chemistry			
	<del>Semivolatile organic GC approved methods</del>	Single Method		Combination
a.	Aniline and Derivatives by EPA Method 8131	\$69.00	\$90.00	
b.	Benzidines by EPA Method 605	45.00	59.00	
c.	Benzidines and Nitrogen Pesticides by EPA Method 553	69.00	90.00	
d.	Bis(2-chloroethyl)ether Hydrolysis Products by EPA Method 8430	69.00	90.00	
e.	Carbamates/Urea Pesticides by EPA Methods 531.1, 632, 8318	69.00	90.00	102.00
f.	Carbonyl Compounds by EPA <del>Method 8345</del> 8315A	69.00	90.00	
g.	Chlorinated Herbicides by EPA Methods 515.2, 555, <del>8151</del> 8151A, Standard Methods 6640-B, ASTM D-3478-85	69.00	90.00	102.00
h.	Chlorinated Hydrocarbons by EPA Methods 612, 8121	69.00	90.00	102.00

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i.	1,2-Dibromoethane and 1,2-Dibromo-3-Chloropropane by EPA Methods 504.1, <del>551</del> <u>551.1</u> , 8011, BLS Method 127	<del>69.00</del> <u>90.00</u>	<del>102.00</del> <u>133.00</u>
j.	Diquat and Paraquat by EPA Method <del>549.1</del> <u>549.2</u>	<del>69.00</del> <u>90.00</u>	
k.	Endothall by EPA Method 548.1	<del>69.00</del> <u>90.00</u>	
l.	Glyphosate by EPA <del>Method</del> <u>Methods</u> 547, 6651	<del>69.00</del> <u>90.00</u>	<del>102.00</del> <u>133.00</u>
m.	Haloacetic <del>Acetic</del> Acids by EPA <del>Method</del> <u>Methods</u> <del>552 and</del> <u>552.1 and 552.2</u>	<del>69.00</del> <u>90.00</u>	<del>102.00</del> <u>133.00</u>
n.	Haloethers by EPA Methods 611, 8111	<del>69.00</del> <u>90.00</u>	<del>102.00</del> <u>133.00</u>
o.	Nitroaromatics and Cyclic Ketones by EPA Methods 609, 8091, <del>8330</del>	<del>69.00</del> <u>90.00</u>	<del>102.00</del> <u>133.00</u>
p.	<u>Nitroaromatics and Nitramines by EPA Method 8330</u>	<u>90.00</u>	
q.	Nitroglycerine by EPA <u>Method</u> 8332	<del>69.00</del> <u>90.00</u>	
r.	Nitrosamines by EPA Methods 607, <del>8070, 8330</del> <u>8070A</u>	<del>69.00</del> <u>90.00</u>	<del>102.00</del> <u>133.00</u>
s.	Nonvolatiles by <del>HPLC/MS</del> by EPA <u>Methods</u> <del>8324</del> <u>8321A, 8325</u>	<del>91.00</del> <u>118.00</u>	<del>136.00</del> <u>177.00</u>
t.	Organochlorine Pesticides/Polychlorinated Biphenyls by EPA Methods 505, 508, 508.1, 608, 8081, 8082, Standard Method 6630C, ASTM Method D3086-85, EPA-600/4-81-045	<del>91.00</del> <u>118.00</u>	<del>136.00</del> <u>177.00</u>
u.	Organophosphorus and Nitrogen Pesticides by EPA Methods 507, 614, <del>1657</del> , <u>8141A</u>	<del>69.00</del> <u>90.00</u>	<del>102.00</del> <u>133.00</u>
v.	Phenols by EPA Methods 604, <del>8041A</del> <u>8041</u>	<del>69.00</del> <u>90.00</u>	<del>102.00</del> <u>133.00</u>
w.	Polynuclear Aromatic Hydrocarbons by EPA Methods 550, 550.1, 610, 8100, 8310	<del>69.00</del> <u>90.00</u>	<del>102.00</del> <u>133.00</u>
	<del>Polynuclear Aromatic Hydrocarbons by EPA Method 8310</del>	<del>69.00</del>	
x.	Phthalate Esters by EPA Methods; <del>506, 606, 8061</del> <u>8061A, 506</u>	<del>69.00</del> <u>90.00</u>	<del>102.00</del> <u>133.00</u>
y.	Semivolatile <del>organic organics GC/MS approved methods</del> by EPA Methods 525.2, 625, 1625, <del>8270B</del> <u>8270C</u>	<del>91.00</del> <u>118.00</u>	<del>182.00</del> <u>237.00</u>
z.	Semivolatile organics <del>GC/FT-IR</del> by EPA <u>Method</u> 8410	<del>69.00</del> <u>90.00</u>	
aa.	Tetrazine by EPA <u>Method</u> 8331	<del>69.00</del> <u>90.00</u>	
bb.	Triazine Pesticides by EPA Method 619	<del>69.00</del> <u>90.00</u>	
cc.	Dioxin and Furans by EPA Methods <del>613, 1613, 613, 8280</del> <u>8280A, 8290,</u> <del>Director approved GC methods</del>	<del>272.00</del> <u>354.00</u>	<del>362.00</del> <u>471.00</u>
	<del>Director approved GC/MS methods</del>	<del>69.00</del>	
		<del>91.00</del>	
9.	Radiochemicals		
a.	Fee for radiochemistry testing		<del>\$270.00</del> <u>\$351.00</u>
b.	Each radioisotope counting instrument		<del>45.00</del> <u>59.00</u>
c.	Gross Alpha Activity		<del>91.00</del> <u>118.00</u>
d.	Gross Beta Activity		<del>91.00</del> <u>118.00</u>
e.	Radium-226		<del>91.00</del> <u>118.00</u>
f.	Radium-228		<del>91.00</del> <u>118.00</u>
g.	Cesium-134		<del>91.00</del> <u>118.00</u>
h.	Iodine-131		<del>91.00</del> <u>118.00</u>
i.	Polonium-210		<del>91.00</del> <u>118.00</u>
j.	Radon-222		<del>91.00</del> <u>118.00</u>
k.	Strontium-89		<del>91.00</del> <u>118.00</u>
l.	Strontium-90		<del>91.00</del> <u>118.00</u>
m.	Tritium		<del>91.00</del> <u>118.00</u>
n.	Uranium		<del>91.00</del> <u>118.00</u>
o.	Photon Emitters, each method		<del>91.00</del> <u>118.00</u>
p.	Each radiochemical approved method when the laboratory applies for 5 or more.		<del>73.00</del> <u>95.00</u>
10.	Hazardous Characteristic Testing Approved Methods		
a.	Corrosivity toward steel		<del>\$38.00</del> <u>\$49.00</u>
b.	Ignitability		<del>38.00</del> <u>49.00</u>
c.	Reactivity		<del>38.00</del> <u>49.00</u>
d.	Extraction Procedure Toxicity Characteristic*		<del>91.00</del> <u>118.00</u>
e.	Toxicity Characteristic Leaching Procedure*		<del>181.00</del> <u>235.00</u>
f.	Synthetic Characteristic Leaching Procedure*		<del>181.00</del> <u>235.00</u>

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\*(The ~~fee~~ fees for these procedures are for the sample extraction and leaching processes only.)

11. Miscellaneous Compliance Testing		
a. Total Organic Carbon		\$45.00 <del>\$59.00</del>
b. Total Organic Halides		45.00 <del>59.00</del>
c. Purgeable Organic Halides		68.00 <del>88.00</del>
d. Extractable Organic Halides		68.00 <del>88.00</del>
e. Ethylene Glycol		91.00 <del>118.00</del>
f. Total Petroleum Hydrocarbon		91.00 <del>118.00</del>
g. Oil and Grease		45.00 <del>59.00</del>
h. Cyanide; total, direct, and amenable to chlorination		91.00 <del>118.00</del>
i. Total Phenols		91.00 <del>118.00</del>
j. Lead in paint		23.00 <del>30.00</del>
k. Magnesium - gravimetric		23.00 <del>30.00</del>
l. Sulfide		45.00 <del>59.00</del>
m. Sulfite		45.00 <del>59.00</del>
n. Silica		45.00 <del>59.00</del>
o. Bulk Asbestos Identification		136.00 <del>177.00</del>
p. White Phosphorous		69.00 <del>90.00</del>
q. <del>Immunoassay Tests (each)</del> <u>Each Immunoassay Test</u>		45.00 <del>59.00</del>
r. Compatibility Test for Wastes and Membrane Liners		20.00 <del>26.00</del>
s. Cation-Exchange Capacity of Soil		20.00 <del>26.00</del>
<del>Director approved methods</del>		20.00
t. Asbestos fiber counting by:		
i. Light microscopy		136.00 <del>177.00</del>
ii. Electron microscopy		227.00 <del>295.00</del>
iii. <del>Electron Microscopy</del> <u>microscopy</u> with X-Ray Diffraction		300.00 <del>390.00</del>
12. Ambient Air Compliance Testing Approved Methods		
a. Carbon Monoxide		\$181.00 <del>\$235.00</del>
b. Hydrocarbons		181.00 <del>235.00</del>
c. Lead		181.00 <del>235.00</del>
d. Nitrogen Dioxide		181.00 <del>235.00</del>
e. Ozone		181.00 <del>235.00</del>
f. Particulate Matter		181.00 <del>235.00</del>
g. Sulfur Oxides		181.00 <del>235.00</del>
h. Maximum for ambient air testing-		952.00 <del>1,238.00</del>
13. Air - Stationary Sources and Stack Testing Approved Methods		
a. Carbon Dioxide/Oxygen/Excess Air		\$181.00 <del>\$235.00</del>
b. Carbon Monoxide		181.00 <del>235.00</del>
c. Carbonyl Sulfide/Carbon Dioxide		181.00 <del>235.00</del>
d. Fluoride		181.00 <del>235.00</del>
e. Gaseous Organic Compounds		181.00 <del>235.00</del>
f. Hydrogen Sulfide		181.00 <del>235.00</del>
g. Inorganic Lead		181.00 <del>235.00</del>
h. Moisture Content		181.00 <del>235.00</del>
i. Nitrogen Oxide		181.00 <del>235.00</del>
j. Particulate Emissions:		
i. Asphalt Processing		91.00 <del>118.00</del>
ii. Fiberglass Insulation		91.00 <del>118.00</del>
iii. Nonsulfate		91.00 <del>118.00</del>
iv. Nonsulfuric Acid		91.00 <del>118.00</del>
v. Pressure Filters		91.00 <del>118.00</del>
vi. Stationary Sources		91.00 <del>118.00</del>
vii. Sulfur Dioxide		91.00 <del>118.00</del>
viii. Wood Heaters		91.00 <del>118.00</del>
ix. Particulate emissions maximum		544.00 <del>707.00</del>
k. Sulfur and Total Reduced Sulfur		181.00 <del>235.00</del>
l. Sulfur Dioxide		181.00 <del>235.00</del>
m. Sulfuric Acid Mist		181.00 <del>235.00</del>
n. <u>Toxic Organic Compounds in Ambient Air by Method TO-15</u>		118.00

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- |      |  |                          |
|------|--|--------------------------|
| o.   | Volatile Matter/Density/Solids/Water         | 181.00 <u>235.00</u>     |
| p.   | Vapor Tightness - Gasoline Delivery Tank     | 181.00 <u>235.00</u>     |
| q.   | Volatile Organic Compounds                   | 181.00 <u>235.00</u>     |
| r.   | Wood Heaters Certification and Burn Rates    | 181.00 <u>235.00</u>     |
| s.   | Stationary Sources and Stack Testing maximum | 2,720.00 <u>3,536.00</u> |
| t.   | <u>Petroleum product analysis:</u>           |                          |
| i.   | <u>Hydrometer method</u>                     | 59.00                    |
| ii.  | <u>Sulfur</u>                                | 118.00                   |
| iii. | <u>Heat of Combustion</u>                    | 59.00                    |
14. Arizona Emission Test Approved Methods ~~Particulate Emissions:~~
- |    |                                   |                          |
|----|-----------------------------------|--------------------------|
| a. | Sulfuric Acid Mist/-Sulfur Oxides | \$181.00 <u>\$235.00</u> |
| b. | Dry Matter                        | 181.00 <u>235.00</u>     |
15. Hazardous Air Pollutant Approved Methods ~~For~~ for National Emission Standards
- |    |                                      |                          |
|----|--------------------------------------|--------------------------|
| a. | Arsenic                              | \$181.00 <u>\$235.00</u> |
| b. | Beryllium                            | 181.00 <u>235.00</u>     |
| c. | Mercury                              | 181.00 <u>235.00</u>     |
| d. | Polonium-210                         | 181.00 <u>235.00</u>     |
| e. | Vinyl Chloride                       | 181.00 <u>235.00</u>     |
| f. | Maximum for hazardous air pollutants | 680.00 <u>884.00</u>     |
16. When an alternate method is a revision of a method listed in A.A.C. R9-14-611 through A.A.C. R9-14-614, the fee is the same as for the listed method, unless the technology of the alternate method is different from that of the listed method. All other alternate method fees are charged as follows:
- |    |  |         |
|----|--|---------|
| a. | <u>Alternate Gas Chromatography method</u>                   | \$90.00 |
| b. | <u>Alternate Gas Chromatography/Mass Spectrometry method</u> | 118.00  |
| c. | <u>Alternate miscellaneous method</u>                        | 58.00   |
- D.** ~~The laboratory An applicant shall pay submit to the Department a nonrefundable, except as required by A.R.S. §41-1077, handling non-refundable administrative fee of \$78.00 \$101.00 for each all proficiency evaluation audit audits to occur during the license period and the actual cost for proficiency evaluation audit materials, if applicable.~~
- E.** An applicant for an out-of-state laboratory shall submit to the Department an annual fee of \$98.00 if the applicant chooses to receive technical updates from the Department by facsimile transmission.
- EE.** ~~Except for the appointment of an acting laboratory director, a change in the laboratory name, directorship, or ownership a laboratory which A licensee that requests an amendment or modification to its to change its license by adding a parameter to the license before its expiration date; shall pay all applicable licensure licensing fees. Laboratories A licensee shall have 3 free modifications to may delete parameters at no charge 3 times during a licensure license period. Thereafter, each additional deletion shall be charged at a rate of \$10.00 the Department shall charge \$13.00 per parameter for processing each deletion.~~
- F.** ~~Each out-of-state licensed laboratory shall pay an annual fee of \$75.00 if the laboratory chooses to receive technical updates from the Department by FAX.~~

**R9-14-608. Payment of Fees**

- A.** Upon receipt of a license application, the Department calculates the amount owed by the applicant by adding together the following:
- The fees for the methods and instruments for which licensure is requested on the application, as provided in A.A.C. R9-14-607(C);
  - The proficiency evaluation audit fee, as provided in A.A.C. R9-14-607(D); and
  - The technical update fee, as provided in A.A.C. R9-14-607(E), if the applicant is applying for an out-of-state laboratory and has requested to receive technical updates from the Department by facsimile transmission.
- B.** If a laboratory is owned by a small business, the applicant may submit the amount calculated under subsection (A) to the Department in 12 equal installments, with the 1st installment billed by the Department as described in subsection (C) and an installment due on the 1st day of each month for 11 months thereafter.
- C.** After calculating the total fee as described in subsection (A), the Department shall send the applicant a notice of administrative deficiencies and a bill showing the following amount due:
- If the laboratory is owned by a small business, the amount of the 1st installment; or
  - If the laboratory is not owned by a small business, the total amount calculated under subsection (A).
- D.** If an applicant or licensee for a laboratory owned by a small business fails to submit an installment within 7 days from its due date, the Department shall charge a \$20.00 fee for processing the late payment. If an applicant or licensee for a laboratory owned by a small business fails to submit an installment within 30 days from its due date, the Department may initiate action under A.R.S. § 36-495.09.

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**~~R9-14-607.~~ R9-14-609. Proficiency Evaluation**

- A.** ~~Each~~ Once in each 12-month period, or more often if requested by the Department, each laboratory shall demonstrate proficiency as determined by the Department through ~~proficiency evaluation audits by participating in a proficiency evaluation audit~~ proficiency evaluation audits provided by the Principal State Laboratory System, ~~if available, or a proficiency evaluation service provider approved by the Department.~~ The laboratory shall analyze ~~and report~~ proficiency evaluation audit samples for the ~~testing program, category of testing, each parameter, and approved methods~~ for which an initial license or renewal license has been issued or requested and for which proficiency evaluation samples are available. ~~Proficiency evaluation parameters reported by the~~ For a laboratory for subsections (B) through (G) of this Section to demonstrate proficiency for a parameter, test results reported by the laboratory for the parameter shall be within acceptance limits criteria established by the Principal State Laboratory System or proficiency evaluation service or in addition for subsection (B) as required by 40 CFR §§ 141.24, f.17.
- B.** 1. ~~To maintain licensure a license for the approved methods listed for chemistry in R9-14-609 A.A.C. R9-14-611, the a~~ laboratory shall demonstrate ~~continued~~ continued proficiency through ~~audits provided as described in subsection (A) by participating, every 12 months, in a the EPA's water supply study (WS) audit program, the Principal State Laboratory System proficiency evaluation audit program, if available, or a proficiency evaluation service accepted by the Department as required by the EPA under the Safe Drinking Water Act, 42 U.S.C. §§ 300f to 300j-26.~~
- C.** 2. ~~To maintain licensure a license for the approved methods listed for chemistry in R9-14-610 and R9-14-611 A.A.C. R9-14-612 and R9-14-613, the a~~ laboratory shall demonstrate ~~continued~~ continued proficiency through ~~audits provided as described in subsection (A) by participating, every 12 months, in a the EPA's water pollution (WPP) proficiency evaluation audit program, the Principal State Laboratory System proficiency evaluation audit program, if available, or a proficiency evaluation service accepted by the Department as required by the EPA under the Clean Water Act, 33 U.S.C. §§ 1251-1387.~~
- D.** ~~To maintain licensure for the approved methods listed for microbiology in R9-14-609 through R9-14-611, the laboratory shall demonstrate continued proficiency through audits provided by the EPA's proficiency evaluation audit program, the Principal State Laboratory System proficiency evaluation audit program, if available, or a proficiency evaluation service accepted by the Department.~~
- E.** ~~To maintain licensure for the approved methods listed for radiochemicals in R9-14-609 through R9-14-611, the laboratory shall demonstrate continued proficiency through audits provided by the EPA's radiation assessment proficiency evaluation audit and the Interecomparison studies audit programs.~~
- F.** ~~To maintain licensure for the approved methods listed in R9-14-612, the laboratory shall demonstrate continued proficiency through audits provided by the EPA proficiency evaluation audit program, the Principal State Laboratory System proficiency evaluation audit program, if available, or from a proficiency evaluation service accepted by the Department.~~
- B.** A laboratory analyst shall test each proficiency evaluation sample within the holding times required for its parameter and shall use the same procedures and techniques employed for routine sample testing.
- C.** The proficiency evaluation service shall provide the evaluation results directly to the Department.
- GD.** The Department may submit blind proficiency evaluation audit samples to a licensed laboratory at any time during the license period.
- H.** ~~The laboratory shall test all proficiency evaluation audit samples within holding times required by the approved method for each of the audit parameters and report the results to the proficiency evaluation service. Principal State Laboratory System chemistry proficiency evaluation audit sample results shall be reported to the Department within 2 months from the time of receipt. Principal State Laboratory System microbiology proficiency evaluation audit sample results shall be reported to the Department within 2 weeks from the time of receipt.~~
- I.** ~~The Department shall issue a report of Principal State Laboratory System proficiency evaluation audit findings to the laboratory within 2 months of the deadline date for results of the proficiency evaluation audit.~~
- E.** If a proficiency evaluation audit is provided by the Principal State Laboratory System, a licensee or an applicant shall submit to the Department payment for the actual costs of the proficiency evaluation audit materials.
- F.** If a proficiency evaluation audit is not provided by the Principal State Laboratory System, a licensee or an applicant shall select a proficiency evaluation service from a list provided by the Department. A licensee or an applicant shall contract with and pay the proficiency evaluation service directly for a proficiency evaluation audit.

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**~~R9-14-608~~ R9-14-610. Approved Methods and References**

- A.** All compliance samples shall be tested by approved methods and the results shall be validated by reference to the applicable quality assurance requirements listed in the following Key References; or in R9-14-609 through R9-14-612 as appropriate to the sample matrix, and/or as specifically required by ADEQ or EPA. A licensee shall ensure that compliance testing is performed according to an approved method or an alternate method and may use method alterations approved by the Director under subsection (B). The approved methods listed by parameter in A.A.C. R9-14-611 through R9-14-614 are found in the following references, which are incorporated by reference with the modifications described below and are on file with the Department and the Office of the Secretary of State. This incorporation by reference contains no future editions or amendments. The references published by the EPA, the U.S. Department of Energy, the U.S. Department of Health and Human Services, and the U.S. Department of the Interior are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. The other references are available as provided below.
- B.** If approved methods are not available for a particular testing program, category of testing or parameter, and different methods are required by EPA or ADEQ, a lab may use another method if the method is approved by the Director.
1. For existing methods which are not approved methods under this Article, a laboratory may submit a petition to the Department requesting approval. The petition shall include reference to the EPA or ADEQ statute or rule which requires the use of the different method.
  2. A laboratory may submit a petition to the Department requesting the approval of a recommended or locally developed procedure.
    - a) The petition shall contain:
      - i) Name, telephone number, and address of the person submitting the petition;
      - ii) Identification of the pollutant or parameter for which approval of a recommended or locally developed procedure is being requested;
      - iii) Written justification for using the recommended or locally developed procedure including a detailed description of the recommended or locally developed procedure, together with references to published or other studies confirming the general applicability of the recommended or locally developed procedure to the type of sample matrix for which its use is intended, and reference to the EPA or ADEQ requirement to use a recommended or locally developed procedure; and
      - iv) Data which demonstrates the performance of the recommended or locally developed procedure in terms of accuracy, precision, reliability, ruggedness, ease of use and ability to achieve a detection limit appropriate for the proposed use of the method.
    - b) The Department may approve a recommended or locally developed procedure if it determines that the criteria listed in R9-14-608(2)(a)(iv) have been demonstrated.
    - e) The Department may require that the recommended or locally developed procedure be tested in parallel with a reference laboratory for precision and accuracy.
- C.** The following references identified by a capital letter under the heading "Key" contain the approved methods which are listed by parameter in R9-14-609 through R9-14-612. The following approved methods are incorporated by reference and on file with the Office of the Secretary of State and the Department. This incorporation by reference contains no future editions or amendments:
- | Key | Reference   |
|-----|---|
| A   | <u>"Methods for Chemical Analysis of Water and Wastes," Environmental Monitoring and Support Laboratory-Cincinnati, EPA, Pub. No. EPA-600/4-79-020, Methods for Chemical Analysis of Water and Wastes EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, (revised rev. March 1983).</u>  |
| A1  | <u>"Methods for the Determination of Metals in Environmental Samples Supplement 1", Environmental Monitoring and Support Laboratory-Cincinnati, EPA, Pub. No. EPA-600/R-94-111 EPA/600/R-94/111, Methods for the Determination of Metals in Environmental Samples: Supplement I, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, (May 1994).</u>   |
| A2  | <u>"Methods for the Determination of Inorganic Substances in Environmental Samples", Environmental Monitoring Systems Laboratory, EPA, Pub. No. EPA-600/R-93-100, EPA/600/R-93/100, Methods for the Determination of Inorganic Substances in Environmental Samples (August 1993), modified to increase the maximum holding time from 48 hours to 14 days at 4° C. for chlorinated, unacidified drinking water samples collected for determination of nitrate.</u> |
| A3  | <u>Technicon Industrial Systems, Industrial Method No. 380-75WE, Fluoride in Water and Wastewater (July 1977), available from Bran &amp; Luebbe Analyzing Inc., 1025 Busch Parkway, Buffalo Grove, IL 60089.</u>  |
| A4  | <u>Office of Water, EPA, Pub. No. EPA-821-R-99-005, Method 1631, Revision B: Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry (May 1999).</u>   |
| B   | <u>"Interim Radiochemical Methodology for Drinking Water," Herman L. Krieger, EPA, Pub. No. EPA-600/4-75-008, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, revised Interim Radiochemical Methodology for Drinking Water (March 1976).</u>  |

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- C ~~“Standard Methods for the Examination of Water and Wastewater,” APHA AWWA-WPCF, Washington, D.C.; American Public Health Association et al., Standard Methods for the Examination of Water and Wastewater (19th Edition, ed. 1995), available from American Public Health Association, 1015 15th Street, NW, Washington, DC 20005.~~
- C1 ~~“Hach Handbook of Water Analysis,” 1979; Hach Chemical Company, Loveland, CO 80537 Hach Water Analysis Handbook (3rd ed. 1997), available from Hach Company, P.O. Box 389, Loveland, CO 80539-0389.~~
- C2 ~~“Iron, 1,10-Phenanthroline Method,” Method 8008, 1980, Hach Chemical Company, P.O. Box 389, Loveland, CO 80537.~~
- D ~~“Methods for the Determination of Organic Compounds in Drinking Water,” Environmental Monitoring Systems Laboratory-Cincinnati, EPA, Pub. No. EPA/600/4-88/039, Methods for the Determination of Organic Compounds in Drinking Water EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio; (rev. July 1991).~~
- D1 ~~“Methods for the Determination of Organic Compounds in Drinking Water, Supplement I,” Environmental Monitoring Systems Laboratory-Cincinnati, EPA, Pub. No. EPA/600/4-90/020, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio; Methods for the Determination of Organic Compounds in Drinking Water: Supplement I (July 1990).~~
- D2 ~~“Methods for the Determination of Organic Compounds in Drinking Water, Supplement II,” Environmental Monitoring Systems Laboratory-Cincinnati, EPA, Pub. No. EPA/600/R-92/129, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio; Methods for the Determination of Organic Compounds in Drinking Water: Supplement II (August 1992).~~
- D3 ~~National Exposure Research Laboratory-Cincinnati, EPA, Pub. No. EPA/600/R-95/131, Methods for the Determination of Organic Compounds in Drinking Water: Supplement III (August 1995).~~
- ~~D3~~D4 ~~“Manual for the Certification of Laboratories Analyzing Drinking Water, 4th Edition,” Office of Ground Water and Drinking Water Technical Support Center, EPA, Pub. No. EPA 570/9-90/008 815-B-97-001, Manual for the Certification of Laboratories Analyzing Drinking Water: Criteria and Procedures Quality Assurance EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, April 1990, and updated September 1992 and (4th ed. March 1997).~~
- D4 ~~“The Determination of the Maximum Total Trihalomethane Potential,” Method 510.1, EMSL, EPA, Cincinnati, Ohio 45268.~~
- D5 ~~“Tetra through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS”, EPA-821-B-94-005, October 1994; J.W. Munch and W.J. Bashe, EPA, Method 549.2: Determination of Diquat and Paraquat in Drinking Water by Liquid-Solid Extraction and High Performance Liquid Chromatography with Ultraviolet Detection (rev. 1 June 1997).~~
- D6 ~~Anne M. Pawlecki-Vonderheide and David J. Munch, EPA, Method 515.3: Determination of Chlorinated Acids in Drinking Water by Liquid-Liquid Extraction, Derivatization and Gas Chromatography with Electron Capture Detection (rev. 1 July 1996).~~
- E ~~“Appendix A To Part 136 – Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater,” 40 CFR Part 136 app. A, 1996 (1998).~~
- E1 ~~“Appendix C to Part 136 – Inductively Coupled Plasma – Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes, Method 200.7,” 40 CFR Part 136, 1996. Office of Water Engineering and Analysis Division, EPA, Pub. No. EPA-821-R-93-010-A, Methods for the Determination of Non-conventional Pesticides in Municipal and Industrial Wastewater: Volume I (rev. 1 August 1993).~~
- F ~~“Test Methods for Evaluating Solid Waste,” EPA SW-846, 3rd Edition, EPA, Office of Solid Waste and Emergency Response, Washington, D.C., September EPA, Pub. No. SW-846, Test Methods for Evaluating Solid Waste (3rd ed. 1986 & Update I, July 1992; Update IIA, August 1993; Update II, September 1994; Update IIB, January 1995; Update III, December 1996), and updated September 1994.~~
- F1 ~~“PCB’s in Transformer Oil/Waste Oil,” Thomas A. Bellar and James J. Lichtenberg, EPA, Pub. No. EPA-600/4-81-045, The Determination of Polychlorinated Biphenyls in Transformer Fluid and Waste Oils (September 1982).~~
- G ~~“National Institute for Occupational Safety and Health Manual of Analytical Methods,” U.S. Department of Health and Human Services, Pub. No. 84-100, NIOSH Manual of Analytical Methods: Volume 1, Cincinnati, Ohio, 3rd Edition, (3rd ed. February 1984), updated May 1985, August 1987, and May 1989.~~
- H ~~“Interim Method for Determination of Asbestos in Bulk Insulation Samples,” Environmental Monitoring Systems Laboratory-Research Triangle Park, EPA, Pub. No. EPA-600/4-82-020 EPA-600/M4-82-020, Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA, Environmental Monitoring Systems Laboratory, Research Triangle Park, North Carolina; (March December 1982).~~

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- H1 [“Analytical Method for Determination of Asbestos Fibers in Water,” Eric J. Chatfield and M. Jane Dillon, EPA, Pub. No. EPA/600/4-83-043 EPA-600/4-83-043, Analytical Method for Determination of Asbestos Fibers in Water EPA, Environmental Research Laboratory, Athens, GA, \(September 1983\).](#)
- H2 [Kim A. Brackett et al., EPA, Pub. No. EPA/600/R-94/134, Method 100.2: Determination of Asbestos Structures over 10 µm in Length in Drinking Water \(June 1994\).](#)
- I [“Annual Book of ASTM Standards,” ASTM, Annual Book of ASTM Standards, Volume Vols. 11.01 and 11.02, Water and Environmental Technology, American Society for Testing and Materials, Philadelphia, Pennsylvania \(1995\), available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.](#)
- J [“Methods for Determination of Inorganic Substances in Water and Fluvial Sediments”, U.S. Department of Interior, U.S. Geological Survey, U.S. Department of the Interior, “Methods for Determination of Inorganic Substances in Water and Fluvial Sediments,” published in Techniques of Water-Resources Investigations of the United States Geological Survey at bk. 5, ch. A1 Washington, D.C., 3rd Edition \(3rd ed. 1989\).](#)
- J1 [L.L. Thatcher et al., U.S. Department of the Interior, “Methods for Determination of Radioactive Substances in Water and Fluvial Sediments,” published in Techniques of Water-Resources Investigations of the United States Geological Survey at bk. 5, ch. A5 \(3rd ed. 1989\).](#)
- K [Test Methods for the Determination of: “Ethylene Dibromide and Dibromochloropropane in Water,” BLS-127, revised June 1990; “TPH in Soil,” 418.1AZ, revised Bureau of State Laboratory Services, Arizona Department of Health Services, Method 418.1AZ: TPH in Soil \(September 7, 1994\); “Ethylene Glycol in “Wastewater,” BLS-188, revised April 1990 Division of State Laboratory Services, Arizona Department of Health Services, Method No. BLS-188, Ethylene Glycol in Waste Water \(rev. April 1991\); and “Quantitation of Fuel-Class Hydrocarbons by GC,” BLS-191, issued September 1991 Bureau of State Laboratory Services, Arizona Department of Health Services, C<sub>10</sub> - C<sub>32</sub> Hydrocarbons in Soil - 8015AZ \(rev. 1.0 September 1998\), Department of Health Services, Division available from the Bureau of State Laboratory Services, 1520 W. Adams Street, Phoenix, Arizona AZ 85007-2698.](#)
- K1 [Office of Water, EPA, Pub. No. EPA-821-R-98-002, Method 1664, Revision A: N-Hexane Extractable Material \(HEM; Oil and Grease\) and Silica Gel Treated N-Hexane Extractable Material \(SGT-HEM; Non-polar Material\) by Extraction and Gravimetry \(February 1999\).](#)
- K2 [Office of Water, EPA, Pub. No. EPA-821-B-98-016, Analytical Methods for the Determination of Pollutants in Pharmaceutical Manufacturing Industry Wastewater \(July 1998\).](#)
- L [“Prescribed Procedures for Measurement of Radioactivity in Drinking Water,” Herman L. Krieger and Earl L. Whittaker, EPA, Pub. No. EPA-600/4-80-032, Prescribed Procedures for Measurement of Radioactivity in Drinking Water EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, \(August 1980\).](#)
- M [Environmental Monitoring Systems Laboratory–Cincinnati, EPA, Pub. No. EPA/600/4-90/027, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms \(4th ed. September 1991\).](#)
- M1 [Environmental Monitoring Systems Laboratory–Cincinnati, EPA, Pub. No. EPA/600/4-90/027F, Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms \(4th ed. August 1993\).](#)
- N [Cornelius I. Weber et al., EPA, Pub. No. EPA/600/4-89/001, Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms \(2nd ed. March 1989\); and Environmental Monitoring and Support Laboratory–Cincinnati, EPA, Pub. No. EPA/600/4-89/001a, Supplement to “Short-term Methods for Estimating the Chronic Toxicity of Effluents and Surface Waters to Freshwater Organisms,” \(EPA/600/4-89/001\) \(rev. 1 September 1989\).](#)
- N1 [Environmental Monitoring Systems Laboratory–Cincinnati, EPA, Pub. No. EPA-600-4-91-002, Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms \(3rd ed. July 1994\).](#)
- O [“National Primary and Secondary Ambient Air Quality Standards,” 40 CFR Part 50, Subchapter C, \(1995\).](#)
- P [“USEPA Manual of Methods for Virology,” Gerald Berg et al., EPA, Pub. No. EPA-600/4-84/013 EPA-600/4-84-013, USEPA Manual of Methods for Virology EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, \(February 1984\).](#)
- P1 [Jay Vasconcelos and Stephanie Harris, EPA, Pub. No. EPA 910/9-92-029, Consensus Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis \(MPA\) \(October 1992\).](#)
- P2 [G. Shay Fout et al., EPA, Pub. No. EPA/600/R-95/178, ICR Microbial Laboratory Manual \(April 1996\).](#)
- P3 [Charles P. Gerba, University of Arizona, UofA2000: Ascaris lumbricoides in Water \(1999\), available from the University of Arizona, Microbial Analytical Laboratory, Building No. 90, Rm. 406, Tucson, AZ 85721.](#)
- Q [“Standards of Performance For New Stationary Sources, Appendix A – Test Methods,” 40 CFR Part 60, Appendix app. A; \(1995\).](#)

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- R “Arizona Testing Manual For Air Pollutant Emissions,” Arizona Office of Air Quality, ADEQ, Arizona Testing Manual for Air Pollutant Emissions Phoenix, Arizona, (rev. F March 1992, Revision F), available from the Office of Air Quality, ADEQ, 3033 N. Central Avenue, Phoenix, AZ 85012.
- S “National Emission Standards for Hazardous Air Pollutants, Appendix B Test Methods and Appendix C Quality Assurance Procedures,” 40 CFR Part 61, Appendix apps. B and C; (1995).
- S1 Center for Environmental Research Information, EPA, Pub. No. EPA/625/R-96/010b, Compendium Method TO-15: Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS) (January 1997).
- T Broadway, Susan Broadway et al., “Final Report of Equivalency Testing for Colisure,” Montana State University, Bozeman, MT, Final Report of Equivalency Testing for Colisure (September 29, 1992), available from Millipore Corp. Technical Services Department, 80 Ashby Road, Bedford, MA 01730.
- U “National Primary Drinking Water Regulations,” 40 CFR Part 141, Subpart C, Appendix C, 1994.
- V “The Determination of Inorganic Anions in Water by Ion Chromatography,” EPA 600/4-84-017, EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio, August 1991.
- WU Environmental Measurements Laboratory (EML) Procedures Manual, HASL-300, Vol. 1, U.S. Department of Energy, Pub. No. HASL-300, EML Procedures Manual, Vol. I 27th Edition, 1990, New York, N.Y. (27th ed. rev. February 1992).
- XV Radiochemistry Procedures Manual, Eastern Environmental Radiation Facility (EERF) EPA Montgomery, EPA, Pub. No. EPA 520/5-84/006 520/5-84-006, Montgomery, AL, Eastern Environmental Radiation Facility Radiochemistry Procedures Manual (August 1984 2nd prtg. 1988).
- YW Radiochemical Analytical Procedures for Analysis of Environmental Samples, EPA, Environmental Monitoring and Support Laboratory (EMSL), EMSL LV0539-17, Las Vegas, NV, Las Vegas, EPA, Pub. No. EMSL-LV-0539-17, Radiochemical Analytical Procedures for Analysis of Environmental Samples (March 1979).
- ZX “Test Methods for Escherichia coli in Drinking Water, EC Medium with Mug Tube Procedure, Nutrient Agar with Mug Membrane Filter Procedure,” Office of Ground Water and Drinking Water, EPA, Pub. No. EPA/600/4-91/016, Test Methods for Escherichia Coli in Drinking Water: EC Medium with Mug Tube Procedure, Nutrient Agar with Mug Membrane Filter Procedure EPA, Environmental Monitoring Systems Laboratory, Cincinnati, Ohio, (July 1991).
- X1 Bureau of Radiation and Inorganic Analytical Services, New Jersey Department of Environmental Protection, Determination of Ra-228 in Drinking Water (August 1990), available from New Jersey Department of Environmental Protection, Division of Environmental Quality, Bureau of Radiation and Inorganic Analytical Services, 9 Ewing Street, Trenton, NJ 08625.
- Y Office of Water, EPA, Pub. No. EPA/821/R-99/013, Method OIA-1677: Available Cyanide by Flow Injection, Ligand Exchange, and Amperometry (January 2000).

**B.** If an approved method or existing alternate method is not available for a particular parameter, or a different method or method alteration is required or authorized by an EPA or ADEQ statute or rule, a licensee may petition the Department for approval of a new alternate method or method alteration.

1. For a method or method alteration required or authorized by an EPA or ADEQ statute or rule, the petition shall include:
  - a. The name, address, and telephone number of the licensee submitting the petition;
  - b. The name, address, and telephone number of the laboratory for which approval of the method or method alteration is requested;
  - c. Identification of the parameter for which approval of the method or method alteration is requested; and
  - d. Reference to the EPA or ADEQ statute or rule that requires or authorizes the use of the method or method alteration for which approval is requested.

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2. For a method or method alteration that is not required or authorized by an EPA or ADEQ statute or rule, the petition shall include:
  - a. The name, address, and telephone number of the licensee submitting the petition;
  - b. The name, address, and telephone number of the laboratory for which approval of the method or method alteration is requested;
  - c. Identification of the parameter for which approval of the method or method alteration is requested; and
  - d. Written justification for using the method or method alteration for which approval is requested, including the following:
    - i. A detailed description of the method or method alteration;
    - ii. References to published or other studies confirming the general applicability of the method or method alteration to the parameter for which its use is intended;
    - iii. Reference to the EPA or ADEQ requirement to test the parameter; and
    - iv. Data that demonstrate the performance of the method or method alteration in terms of accuracy, precision, reliability, ruggedness, ease of use, and ability to achieve a detection limit appropriate for the proposed use of the method or method alteration.
3. Before approving a new alternate method or method alteration that is not required or authorized by an EPA or ADEQ statute or rule, the Department may require that the method or method alteration be performed by a laboratory designated by the Department to verify that, using the parameter for which its use is intended, the method or method alteration produces data that comply with subsection (B)(2)(d)(iv).
4. The Department may approve a new alternate method or method alteration that is not required or authorized by an EPA or ADEQ statute or rule if the Department determines that use of the method or method alteration is justified as described in subsection (B)(2)(d).

**R9-14-609 R9-14-611. Drinking Water Sample Matrix Methods**

Every ~~A~~ laboratory ~~which~~ that conducts compliance testing ~~under this rule of drinking water~~ shall follow the guidelines in Key Reference ~~D3 D4, listed in A.A.C. R9-14-610(A), excluding requirements for laboratory personnel educational education and experience, requirements, and use the following approved methods, unless a method falls under the alternate specifications pursuant to R9-14-608(A) or (B). To locate the source of the approved method, cross reference the capital letter listed under "Key" to the reference designation listed in R9-14-608. When the identification and measurement of radio nuclides other than those listed in subsections (E)(1) through (11) of this Section are required, Key reference "X" or "Y" is to be used, except in cases where alternative methods have been requested or approved in accordance with R9-14-608 (A) through (C). In addition, when conducting compliance testing of a drinking water sample for a listed contaminant or group of contaminants, a laboratory shall use at least 1 of the corresponding methods listed below, unless the laboratory uses an alternate method approved by the Department for such testing under A.A.C. R9-14-610(B). Where 2 methods listed are joined by the word "and," a laboratory shall use both methods listed. To locate the source of each method listed, cross reference the capital letter listed under the term "Key" below to the corresponding key-reference list in A.A.C. R9-14-610(A).~~

A. Microbiology:	Key	Approved Method
1. Total Coliforms:		
a. Multiple Tube	C	9221B and C
	<u>C1</u>	<u>8001</u>
b. Membrane Filter	C	9222B, C
c. <del>Coliort (OMPG-MUG)</del> <u>Colilert</u>	C	9223B
d. Colisure	T	Broadway et al.
e. Presence - Absence	C	<del>9221E</del> <u>9221D</u>
2. Heterotrophic Plate Count	C	9215B
3. Escherichia coli	<del>ZX</del>	Tube Procedure
		Membrane Filter Procedure
4. Fecal coliform	C	9221E, 9222D
	<u>C1</u>	<u>8001</u>
5. <u>Viruses</u>	<u>P2</u>	<u>600/R-95/178</u>
6. <u>Giardia and Cryptosporidium</u>	<u>P2</u>	<u>600/R-95/178</u>
<b>B. Sample preparation for metals:</b>	Key	Approved Method
1. Preliminary Filtration	C	3030B
2. Acid Extractable Metals	C	3030C
3. Acid Digestion:		
a. Nitric Acid	C	3030E
b. Nitric Acid/Hydrochloric Acid	C	3030F
c. Nitric Acid/Sulfuric Acid	C	3030G
d. Nitric Acid/Perchloric Acid	C	3030H
e. Nitric Acid/Perchloric Acid/Hydrofluoric Acid	C	3030I

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4. <del>Dry Ashing</del>	€	3030J
5.4. Microwave Assisted Digestion	C	3030K
C. Inorganic chemical and physical characteristics:	Key	Approved Method
1. Alkalinity	C	<del>2320</del> <u>2320B</u>
	I	D1067-92B
	J	I-1030-85
2. Aluminum	A1	200.7, 200.8, 200.9
	C	<del>3120B, 3113B, 3111D,</del> <u>3113B, 3120B</u>
	J	I-3051-85
3. Antimony	A1	200.8, 200.9
	C	3113B
	I	D3697-92
4. Arsenic	A1	200.7, 200.8, 200.9
	C	3113B, 3114B, 3120B
	I	<u>D2972-93B, C</u>
	J	<del>I-1062-85</del>
5. <u>Asbestos</u>	<u>H1</u>	<u>100.1</u>
	<u>H2</u>	<u>100.2</u>
5.6. Barium	A1	200.7, 200.8
	C	3111D, 3113B, 3120B
6.7. Beryllium	A1	200.7, 200.8, 200.9
	C	3113B, 3120B
	I	D3645-93B
8. <u>Bromate</u>	<u>A2</u>	<u>300.1</u>
9. <u>Bromide</u>	<u>A2</u>	<u>300.0, 300.1</u>
7.10. Cadmium	A1	200.7, 200.8, 200.9
	C	3113B
8.11. Calcium	A1	200.7
	C	3111B, 3120B, 3500-Ca D
	I	D511-93 A, B
9.12. Chloride	A2	300.0
	C	<u>4110B, 4500-CI D</u>
	I	<u>D4327-91</u>
10.13. Chlorine, Total Residual	<u>A2</u>	<u>330.1, 330.2, 330.3, 330.4, 330.5</u>
	C	4500-CI D, E, F, G, H, I
	<u>C1</u>	<u>8021, 8167, 8168, 8370</u>
11.14. Chlorine Dioxide	C	<del>4500-CI O2</del> <u>4500-CI O<sub>2</sub> C, D, E</u>
15. <u>Chlorite</u>	<u>A2</u>	<u>300.0, 300.1</u>
12.16. Chromium, Total	A1	200.7, 200.8, 200.9
	C	3113B, <del>3120</del> <u>3120B</u>
13.17. Color	C	2120 B, <del>C, D</del>
	J	<del>I-1250-84</del>
14.18. Copper	A1	200.7, 200.8, 200.9
	C	<u>3111B, 3113B, 3120</u> <u>3120B</u>
	I	D1688-90A, <del>D1688-90C</del> <u>C</u>
15.19. Corrosivity	C	2330B
16.20. Cyanide	A2	335.4
	C	4500-CN C, E, F, G
	I	D2036-91A, B
	J	I-3300-85
17.21. Cyanide, Amenable	C	4500-CN G
	I	D2036-91B
18.22. Fluoride	A2	300.0
	<u>A3</u>	<u>380-75WE</u>
	C	<u>4110B, 4500-F B, C, D, E, 4110B</u>
	<u>C1</u>	<u>8029</u>
	I	D1179-93B, <u>D4327-91</u>

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1923.Hardness	A1	Sum of Ca and Mg
	C	by 200.7 as their carbonates.
		2340B, C, Sum of Ca & Mg
		by ICP as their carbonates.
2024.Iron	A1	200.7, 200.9
	C	3111B, 3113B, 3120B
2125.Lead	A1	200.8, 200.9
	C	3113B
	I	D3559-90D
2226.Magnesium	A1	200.7, 200.8, 200.9
	C	3111B, <del>3120</del> 3120B
2327.Manganese	A1	200.7, 200.8, 200.9
	C	3111B, 3113B, 3120B
	I	<del>D858-90A, D858-90C</del>
2428.Methylene Blue Active Substances	C	5540C
2529.Mercury	A	245.2
	A1	<del>200.8, 245.1, 200.8</del>
	C	3112B
	I	D3223-91
2630.Nickel	A1	200.7, 200.8, 200.9
	C	3111B, 3113B, 3120B
2731.Nitrate	A2	<del>300.0, 353.2, 300.0</del>
	C	<del>4110B, 4500-NO<sub>3</sub>; D, E, F, 4110B</del>
	I	<del>D3867-90A, D3867-90B B, D4327-91</del>
2832.Nitrite	A2	<del>300.0, 353.2, 300.0</del>
	C	<del>4500-NO<sub>2</sub> 4110B, 4500-NO<sub>2</sub> B, E, F, 4110B</del>
	I	<del>D3867-90A, D3867-90B B, D4327-91</del>
2933.Ortho-Phosphate	A2	<del>300.0, 365.1, 300.0</del>
	I	<del>D 515-88A D515-88A, D4327-91</del>
	C	<del>4110, 4500-P-E 4500-P E, F, 4110</del>
	J	<del>I-2601-85 I-1601-85, I-2598-85, I-2601-90</del>
3034.Ozone	C	<del>4500-O<sub>3</sub> 4500-O<sub>3</sub> B</del>
3135.pH (Hydrogen Ion)	A	150.1, 150.2
	C	4500-H B
	C1	8156
	I	D1293-84
3236.Residue, Filterable (FDS)	C	2540C
	J	<del>I-1750-84</del>
33. Temperature, Degrees Celsius	E	<del>2550B</del>
34. Turbidity, NTU: Nephelometric	A	<del>180.1</del>
	E	<del>2130</del>
3537.Selenium	A1	200.8, 200.9
	C	3113B, 3114B
	I	<del>D3859-93A, D3859-93B B</del>
	J	<del>I-3667-85</del>
3638.Silica	A1	200.7
	C	4500-Si D, E, F, 3120B
	I	D859-88
	J	<del>I-1700-85 I-2700-85</del>
3739.Silver	A1	200.7, 200.8, 200.9
	C	3111B, 3113B, 3120B
	J	I-3720-85
3840.Sodium	A1	200.7
	C	3111B, <del>3120B, D1428-82A</del>
3941.Specific Conductance	C	2510B
	C1	8160
	I	D1125-91A

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<del>40</del> 42. Strontium	A1	200.7
	C	3500-Sr B, C, D
<del>41</del> 43. Sulfate	A	375.2
	A2	300.0, 375.2
	C	4110 4110B, 4500-SO <sub>4</sub> 4500-SO <sub>4</sub> C, D, F
	I	D4327-91
44. <u>Temperature, Degrees Celsius</u>	C	2550B
<del>42</del> 45. Thallium	A1	200.8, 200.9
46. <u>Total Organic Carbon</u>	C	5310B, C, D
47. <u>Turbidity: Nephelometric</u>	A2	180.1
	C	2130B
48. <u>Ultraviolet Absorbing Organic Constituents</u>	C	5910B
<del>43</del> 49. Zinc	A1	200.7, 200.8
	C	3111B, 3120B
D. Organic chemicals:	Key	Approved Method
1. Total Trihalomethanes	<del>DD3</del>	502.2, 524.2, 551.1
	<del>D1</del>	551
	<del>D2</del>	524.2
2. <del>Halogenated Volatiles</del> <u>Volatile Organics</u>	<del>DD3</del>	502.2, 524.2
	<del>D2</del>	524.2
3. <del>Aromatic Volatiles</del>	D	502.2
	<del>D2</del>	524.2
43. Chlorinated Pesticides	<del>DD3</del>	505, 508, 508.1, 525.2
54. Polychlorinated Biphenyls ( <del>PCBs</del> )	D	505, 508, 508A
	D3	505, 508
65. Chlorophenoxy Herbicides	E	6640B
	D	515.1
	D2	515.2, 552.1, 555
	D3	515.2
	I	D3478-85
76. 1,2-Dibromoethane ( <del>EDB</del> ) and 1,2-Dibromo-3-Chloropropane	<del>DD3</del>	504.1, 551.1
	<del>D1</del>	551
	K	BLS-127
8. 1,2-Dibromo-3-Chloropropane (DBCP)	D	504.1
	<del>D1</del>	551
	K	BLS-127
97. Nitrogen and Phosphorus Pesticides	<del>DD3</del>	507, 508.1, 525.2
<del>40</del> 8. Base/Neutrals and Acids	<del>DD3</del>	525.2
<del>41</del> 9. Carbamates	<del>DD3</del>	531.1
<del>42</del> 10. Dioxins and Furans	<del>D5E</del>	1613
<del>43</del> 11. Glyphosate	D1	547
<del>44</del> 12. Endothall	D2	548.1
<del>45</del> 13. Diquat and Paraquat	<del>D2D5</del>	549.1 549.2
<del>46</del> 14. Polycyclic Aromatic Hydrocarbons	D	525.2
	D1	550, 550.1
	D3	525.2
4715. <del>DBPs</del> <u>Disinfectant By-products</u> and Chlorinated Solvents	<del>D1D3</del>	551 551.1
4816. Haloacetic Acids	C	6251B
	<del>D1</del>	552
	D2	552.1
	D3	551.1, 552.2
4917. Phthalate Esters and Adipates	<del>DD3</del>	506, 525.2
	<del>D1</del>	506
2018. Benzidines and Nitrogen Pesticides	D2	553
2419. Carbonyl Compounds	D2	554
2220. Chlorinated Acids	D2	555
	D6	515.3

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E. Radiochemical:	Key	Approved Method
1. Gross Alpha	B	Gross Alpha
	C	7110B, 7110C
	<u>J1</u>	<u>R-1120-76</u>
	L	900
	<u>V</u>	<u>00-01, 00-02</u>
	<u>W</u>	<u>Gross Alpha</u>
2. Gross Beta	B	Gross Beta
	C	7110B
	<u>J1</u>	<u>R-1120-76</u>
	L	900
	<u>V</u>	<u>00-01</u>
	<u>W</u>	<u>Gross Beta</u>
3. <del>Total Radium</del>	<del>B</del>	<del>Total Radium</del>
	<del>C</del>	<del>7500-Ra B</del>
	<del>L</del>	<del>903</del>
43. Radium-226	B	<del>Radium-226</del> Radon Emanation, Precipitation Method
	C	7500-Ra B, 7500-Ra C
	I	D2460-90, D3454-91
	<u>J1</u>	<u>R-1140-76, R-1141-76</u>
	L	903, 903.1
	<u>U</u>	<u>Ra-05</u>
	<u>V</u>	<u>Ra-03, Ra-04</u>
	<u>W</u>	<u>Radium 226</u>
54. Radium-228	B	<u>Radium 228</u>
	C	<u>7500-Ra D</u>
	<u>J1</u>	<u>R-1142-76</u>
	L	904
	<u>V</u>	<u>Ra-05</u>
	<u>W</u>	<u>Radium 228</u>
65. Cesium-134	<u>X1</u>	<u>Radium 228</u>
	B	Cesium-134
	C	7500-Cs B, 7120
	<u>J1</u>	<u>R-1110-76, R-1111-76</u>
	L	901, 901.1
	<u>U</u>	<u>4.5.2.3</u>
	<u>W</u>	<u>Gamma Spectra</u>
76. Iodine-131	B	<del>Iodine-131</del> Precipitation Method, Distillation Method
	C	7500-I B, C, D, 7120
	I	D3649-91, D4785-93
	L	901.1, 902
	<u>U</u>	<u>4.5.2.3</u>
	<u>W</u>	<u>Gamma Spectra</u>
8. <del>Radon-222</del>	<del>L</del>	<del>Lucas Cell</del>
97. Strontium	B	Strontium
	C	7500-Sr B
	<u>J1</u>	<u>R-1160-76</u>
	L	905
	<u>U</u>	<u>Sr-01, Sr-02</u>
	<u>V</u>	<u>Sr-04</u>
	<u>W</u>	<u>Strontium</u>
108. Tritium	B	Tritium
	C	7500-H B
	I	D4107-91
	<u>J1</u>	<u>R-1171-76</u>
	L	906
	<u>V</u>	<u>H-02</u>

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49.Uranium	W B C I J1  L I U V W C L W Key P1	Tritium Uranium 7500-U B, C <u>D2907-91, D3972-90, D5174-91</u> <u>R-1180-76, R-1181-76,</u> <u>R-1182-76</u> 908, 908.1 <u>D2907-83</u> <u>U-02, U-04</u> <u>00-07</u> <u>Uranium</u> <u>7120, 7500-Cs B, 7500-I B</u> <u>901, 901.1, 902</u> <u>Gamma Spectra</u> <u>Method</u> <u>910/9-92-029</u>
10.Gamma Emitting Isotopes		
<b>F. Biological:</b>		
<u>Microscopic Particulate Analysis</u>		

**R9-14-610 R9-14-612. Wastewater Sample Matrix Methods**

Every laboratory which conducts compliance testing under this rule shall use the following approved methods, unless a method falls under an alternate method pursuant to R9-14-608(A) or (B). To locate the source of the approved method, cross reference the capital letter listed under "Key" to the reference designation listed in R9-14-608 (C). When conducting compliance testing of a wastewater sample for a listed contaminant or group of contaminants, a laboratory shall use at least 1 of the corresponding methods listed below, unless the laboratory uses an alternate method approved by the Department for such testing under A.A.C. R9-14-610(B). Where 2 methods listed are joined by the word "and," a laboratory shall use both methods listed. To locate the source of each method listed, cross reference the capital letter listed under the term "Key" below to the corresponding key-reference list in A.A.C. R9-14-610(A).

A. Microbiology:	Key	Approved Method
1. Fecal Coliforms:		
a. Multiple Tube Fermentation	C	9221E
b. Membrane Filter	C	9222D
	J	B-0050-85
2. Total Coliforms:		
a. Multiple Tube Fermentation	C	9221B
b. Membrane Filter	C	9222B
	J	B-0025-77
3. Fecal Streptococcus:		
a. <del>Multiple Tube</del> <u>Multiple Tube</u> <u>Fermentation</u>	C	9230B
b. Membrane Filter	C	9230C
	J	<del>B0055-85</del> <u>B-0055-85</u>
4. Viruses	P	<u>Methods for Virology</u>
	C	9510
	P	<u>Methods for Virology</u>
	P2	<u>600/R-95/178</u>
5. <u>Giardia and Cryptosporidium</u>	C	9711B
	P2	<u>600/R-95/178</u>
6. <u>Ascaris lumbricoides</u>	C	10550
	P3	<u>UofA2000</u>
7. <u>Common tapeworm</u>	C	10550
8. <u>Entamoeba histolytica</u>	C	10550
<b>B. Inorganic chemicals, nutrients and demand:</b>	Key	Approved Method
1. Acidity	A	305.1
	C	2310B
	C1	8010
	I	D1067-92
2. Alkalinity, Total	A	310.1, 310.2
	C	2320B
	I	D1067-92
	J	I-1030-85, I-2030-85

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3. Aluminum	A	202.1, 202.2
	A1	200.7, 200.8, 200.9
	C	<u>3111D</u> , 3113B, <del>3111D</del> , 3120B
	J	I-3051-85
4. Ammonia	A	<del>350.1</del> , 350.2, 350.3
	<u>A2</u>	<u>350.1</u>
	C	<del>4500-NH3</del> <u>4500-NH<sub>3</sub></u> , B, C, <u>D</u> , E, F, G, <del>H</del>
	<u>C1</u>	<u>8038</u>
	I	<del>D1426-89A, D1426-89B</del> <u>D1426-93A, B</u>
	J	I-3520-85, I-4523-85
5. Antimony	A	204.1, 204.2
	A1	200.7, 200.8, 200.9
	C	<u>3111B</u> , 3113B, 3120B, <del>3111B</del>
6. Arsenic	A	206.2, 206.3, 206.4, 206.5
	A1	200.7, 200.8, 200.9
	C	3113B, <u>3120B</u> , 3500-As B, C, <del>3120B</del>
	<u>C1</u>	<u>8013</u>
	I	<del>D2972-88A, B, C</del> <u>D2972-93A, B, C</u>
	J	I-3060-85, I-3062-85
7. Barium	A	208.1, 208.2
	A1	200.7, 200.8
	C	<del>3111</del> <u>3111D</u> , 3113B, 3120B
	I	D4382-91
	J	I-3084-85
8. Beryllium	A	210.1, 210.2
	A1	200.7, 200.8, 200.9
	C	<del>3111</del> , 3111D, 3113B, 3120B, 3500-Be <u>D</u>
	I	<del>D3645-84A, D364588B, D419088</del> <u>D3645-94(88)A, B, D4190-82(88)</u>
	J	I-3095-85
9. Biochemical Oxygen Demand	A	405.1
	C	5210B
	<u>C1</u>	<u>8043</u>
	J	I-1578-78
10. Boron	A	212.3
	A1	200.7
	C	3120B, 4500-B B
	J	I-3112-85
11. Bromide	A	320.1
	A2	300.0
	I	<del>D1246-88C</del> <u>D1246-82(88)C</u>
	J	I-1125-85
12. Cadmium	A	213.1, 213.2
	A1	200.7, 200.8, 200.9
	C	3111B, C, 3113B, 3120B, 3500-Cd <u>D</u>
	<u>I</u>	<u>D3557-90A, B, C, D, D4190-82(88)</u>
	<del>D</del>	<del>3557-90 A, B, C, D4190-82</del>
	J	I-3135-85, I-3136-85, <u>I-1472-85</u>
13. Calcium	A	215.1, 215.2
	A1	200.7
	C	<del>3111</del> <u>3111B</u> , 3120B, 3500-Ca <u>D</u>
	<u>C1</u>	<u>8222</u>
	I	<del>D511-92A, D511-92B</del> <u>D511-93A, B</u>
	J	I-3152-85
14. Chemical Oxygen Demand	A	410.1, 410.2, 410.3, <del>410.4</del>
	<u>A2</u>	<u>410.4</u>
	C	<del>5220B, C, 5220C, D</del>
	C1	<u>8000, 8230</u>
	I	D-1252-88A, B

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	J	I-3560-85, I-3561-85, I-3562-85
15. Chloride	<u>A</u>	<del>A325-1</del> <u>325.1</u> , 325.2, 325.3
	A2	300.0
	C	4500-CI B, C, E
	<u>C1</u>	<u>8225</u>
	I	D512-89A, <del>D512-89B</del> B
16. Chlorine, Total Residual	J	I-1183-85, <u>I-1184-85</u> , I-1187-85, I-2187-85, <del>I-1184-85</del>
	A	330.1, 330.2, 330.3, 330.4, 330.5
	C	4500-CI B, C, D, F, G
	<u>C1</u>	<u>8167, 8168, 10014</u>
	I	<del>D1253-86</del> <u>D1253-86(92)</u>
17. Chromium, Hexavalent	A	218.4
	C	<u>3111C</u> , 3500-Cr D, <del>3111C</del>
	I	D1687-92A
18. Chromium, Total	J	I-1230-85, I-1232-85
	A	218.1, 218.2, 218.3
	A1	200.7, 200.8, 200.9
	C	3111B, C, 3113B, 3120B, 3500-Cr D
	<u>C1</u>	<u>8023</u>
	I	<del>D1687-92A, B, C, D4190-82</del> <u>D4190-82(88)</u>
19. Cobalt	J	I-3236-85
	A	219.1, 219.2
	A1	200.7, 200.8, 200.9
	C	3111B, C, 3113B, 3120B
	I	<del>D3550-90A, B, D4190-82</del> <u>D3558-90A, B, C, D4190-82(88)</u>
20. Color	J	I-3239-85
	A	110.1, 110.2, 110.3
	C	2120B, <del>2120C</del> C, <del>2120E</del> E
21. Copper	J	I-1250-85
	A	220.1, 220.2
	A1	200.7, 200.8, 200.9
	C	3111B, C, 3113B, 3120B, 3500-Cu D, E
	C1	8506
	I	D1688-90A, B, C, <del>D4190-82</del> <u>D4190-82(88)</u>
22. Cyanide, Amenable to Chlorination	J	I-3270-85, I-3271-85
	A	335.1
	C	4500-CN G
	I	D2036-91B
<u>23. Cyanide, Available</u>	<u>Y</u>	<u>OIA-1677</u>
<del>23</del> <u>24</u> .Cyanide, Total	A	335.2, 335.3
	C	4500-CN C, D, E
	I	D2036-91A
<del>24</del> <u>25</u> .Fluoride	J	I-3300-85
	A	340.1, 340.2, 340.3
	A2	300.0
	C	4500-F B, C, D, E
	<u>C1</u>	<u>8029</u>
	I	<del>D1179-88A, D1179-88B</del> <u>D1179-93A, B</u>
<del>25</del> <u>26</u> .Gold	J	I-4327-85
	A	231.1, 231.2
	C	3111B
<del>26</del> <u>27</u> .Hardness	A	130.1, 130.2, Sum of <del>ICP</del> Ca & Mg as their carbonates
	A1	200.7
	C	2340B, <del>2340C</del> C
	<u>C1</u>	<u>8226</u>
	I	<del>D1126-86</del> <u>D1126-86(92)</u>
	J	I-1338-85

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<u>2728</u> .Iridium	A	235.1, 235.2
	C	3111B
<u>2829</u> .Iron	A	236.1, 236.2
	A1	200.7, 200.9
	C	3111B, C, 3113B, 3120B, 3500-Fe D
	<del>E2</del> C1	8008
	I	D1068-90 A, B, C, D, <del>4190-82</del> <u>D4190-82(88)</u>
	J	I-3381-85
<u>2930</u> .Kjeldahl, Total Nitrogen	A	351.1, <del>351.2</del> , 351.3, 351.4
	<u>A2</u>	<u>351.2</u>
	C	4500-NH <sub>3</sub> -B, C, E, F, G <del>3</del> Combination of 4500-N <sub>org</sub> -B, C and 4500-NH <sub>3</sub> -C, D, F, G
	I	D3590-89A, <del>D3590-89B</del> B
	J	I-4551-78
<u>3031</u> .Lead	A	239.1, 239.2
	A1	200.7, 200.8, 200.9
	C	3111B, C, 3113B, 3120B, 3500-Pb D
	<u>C1</u>	<u>8033</u>
	I	<del>D3559-85</del> A, B, C, D, <u>D4190-82</u> <u>D3559-90A, B, C, D, D4190-82(88)</u>
	J	I-3399-85
<u>32</u> . Lithium	<u>A1</u>	<u>200.7</u>
<u>3433</u> .Magnesium	A	242.1
	A1	200.7
	C	3111B, <u>3120B</u> , 3500-Mg D, <del>3120B</del>
	I	<del>D511-92B</del> <u>D511-93B</u>
	J	I-3447-85
<u>3234</u> .Manganese	A	243.1, 243.2
	A1	200.7, 200.8, 200.9
	C	3111B, 3113B, 3120B, 3500-Mn; D
	C1	8034
	<u>I</u>	<u>D858-90 A, B, C, D4190-82(88)</u>
	J	I-3454-85
<u>3335</u> .Mercury	A	245.2
	A1	245.1
	<u>A4</u>	<u>1631</u>
	C	3112B
	I	D3223-91
	J	<del>I-3462-85</del> <u>I-3462-85</u>
<u>36</u> . Methylene Blue Active Substances	<u>A</u>	<u>425.1</u>
	<u>C</u>	<u>5540C</u>
	<u>I</u>	<u>D2330-88</u>
<u>3437</u> .Molybdenum	A	246.1, 246.2
	A1	200.7, 200.8
	C	3111D, 3113B, 3120B
	J	I-3490-85
<u>3538</u> .Nickel	A	249.1, 249.2
	A1	200.7, 200.8, 200.9
	C	3111B, C, 3113B, 3120B, 3500-Ni D
	<u>C1</u>	<u>8037</u>
	I	D1886-90A, B, C, <del>D4190-82</del> <u>D4190-82(88)</u>
	J	I-3499-85
<u>3639</u> .Nitrate	A	352.1, 353.1, <del>353.2</del> , 353.3
	A2	300.0, <u>353.2</u>
	C	<del>4500-NO<sub>3</sub></del> 4500-NO <sub>3</sub> E, F, H
	I	D3867-90A, <del>D3867-90</del> B
	J	I-4545-85

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3740.Nitrite	A	354.1
	A2	300.0
	C	4500-NO <sub>2</sub> <u>B</u>
	C1	<del>8607</del> <u>8507</u>
	J	I-4540-85
3841.Oil and Grease <u>and Total Petroleum</u>	A	413.1
<u>Hydrocarbons</u>	C	5520B
	<u>K1</u>	<u>1664</u>
3942.Organic Carbon, Total (TOC)	A	415.1
	C	5310B, C, D
	I	<del>D2579-85A, D2579-85B</del> <u>D2579-93A, B</u>
4043. <del>Orthophosphate</del> <u>Orthophosphate</u>	A	365.1, 365.2, 365.3
	A2	300.0
	C	4500-P; E, F
	<u>C1</u>	<u>8048</u>
	I	D515-88A
	J	I-4601-85
4144.Osmium	A	252.1, 252.2
	C	3111D
4245.Oxygen, Dissolved	A	360.1, 360.2
	C	4500-O C, <del>4500-O</del> <u>G</u>
	<u>C1</u>	<u>8229</u>
	I	D888-92A, B
	J	I-1575-78, I-1576-78
4346.Palladium	A	253.1, 253.2
	C	3111B
4447.pH (Hydrogen Ion)	A	150.1
	C	4500-H B
	<u>C1</u>	<u>8156</u>
	I	<del>D1293-84A, D1293-84B</del> <u>D1293-84(90)A, B</u>
	J	I-1586-85
48. <u>Phenols</u>	A	<u>420.1, 420.2</u>
	<u>C1</u>	<u>8047</u>
4549.Phosphorus, Total	A	<del>365.1, 365.2, 365.3, 365.4</del>
	<u>A2</u>	<u>365.1</u>
	C	4500-P B, E, F
	<u>C1</u>	<u>8190</u>
	I	D515-88A, <del>D515-88B</del> <u>B</u>
	J	I-4600-85
4650.Platinum	A	255.1, 255.2
	C	3111B
4751.Potassium	A	258.1
	A1	200.7
	C	3111B, <u>3120B</u> , 3500-K D, <del>3120B</del>
	J	I-3630-85
4852.Residue, Total	A	160.3
	C	2540B
	J	I-3750-85
4953.Residue, Filterable (FDS)	A	160.1
	C	2540C
	J	I-1750-85
5054.Residue, Nonfilterable (TSS)	A	160.2
	C	2540D
	<u>C1</u>	<u>8158</u>
	J	I-3765-85
5155.Residue, Settleable Solids	A	160.5
	C	2540F
5256.Residue, Volatile	A	160.4
	J	I-3753-85

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5357. Rhodium	A	265.1, 265.2
	C	3111B
5458. Ruthenium	A	267.1, 267.2
	C	3111B
5559. Selenium	A	270.2
	A1	200.7, 200.8, 200.9
	C	3113B, 3114B, 3120B
	I	<del>D3859-88A</del> <u>D3859-93A, B</u>
	J	I-3667-85
5660. Silica, Dissolved	A	370.1
	A1	200.7
	C	<u>3120B</u> , 4500-Si D, <del>3120B</del>
	I	D859-88
	J	I-1700-85, I-2700-85
5761. Silver	A	272.1, 272.2
	A1	200.7, 200.8, 200.9
	C	3111B, C, 3113B, 3120B
	J	I-3720-85
5862. Sodium	A	273.1
	A1	200.7
	C	3111B, 3120B
	J	I-3735-85
5963. Sodium Azide	C	4110C
<del>60. Sodium/Potassium Perchlorate</del>	<del>V</del>	<del>300.0</del>
6164. Specific Conductance	A	120.1
	C	2510B
	<u>C1</u>	<u>8160</u>
	I	D1125-91A
	J	I-1780-85
6265. Strontium	A1	200.7
	C	3111, <u>3120B</u> , 3500-Sr B, C, <del>D 3120B</del>
6366. Sulfate	A	375.1, 375.3, 375.4
	A2	300.0
	C	4500-SO <sub>4</sub> C, D
	<u>C1</u>	<u>8051</u>
	I	D516-90
6467. Sulfide	A	376.1, 376.2
	C	4500-S D, <del>4500-S E F</del>
	<u>C1</u>	<u>8131</u>
	J	I-3840-85
6568. Sulfite	A	377.1
	C	<del>4500-SO<sub>3</sub></del> <u>4500-SO<sub>3</sub> B</u>
	<u>C1</u>	<u>8071</u>
66. Surfactants (MBAS)	A	425.1
	E	5540C
	F	<del>D2330-88</del>
6769. Temperature Degrees Celsius	A	170.1
	C	2550B
6770. Thallium	A	279.1, 279.2
	A1	200.7, 200.8, 200.9
	C	3111B, 3120B
6971. Tin	A	282.1, 282.2
	A1	200.7, 200.9
	C	3111B, 3113B
	J	I-3850-78
7072. Titanium	A	283.1, 283.2
	C	3111D

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<del>7173.</del> Turbidity, NTU	<del>AA2</del>	180.1
	C	2130B
	I	D1889-88A
	J	I-3860-85
7274. Vanadium	A	286.1, 286.2
	A1	200.7, 200.8
	C	3111D, <del>3120B</del> , 3500-V; D, <del>3120B</del>
	I	<del>D4190-82</del> <u>D3373-93, D4190-82(88)</u>
7375. Zinc	A	289.1, 289.2
	A1	200.7, 200.8, 200.9
	C	3111B, C, 3120B, 3500-Zn E, F
	C1	8009
	I	D1691-90A, B, <del>D4190-82</del> <u>D4190-82(88)</u>
	J	I-3900-85
C. <del>Aquatic toxicity and bioassay:</del> <u>Bioassay:</u>	Key	Approved Method
<del>Static, Static/Renewal and Flow-Through</del>	<del>C</del>	<del>8711, 8910</del>
<u>Toxicity</u>	<u>M</u>	<u>600/4-90/027</u>
	<u>M1</u>	<u>600/4-90/027F</u>
	<u>N</u>	<u>600/4-89-001 and 600/4-89-001a</u>
	<u>N1</u>	<u>600/4-91/002</u>
D. Organic chemical:	Key	Approved Method
1. <del>Halogenated Volatiles</del> <u>Volatile Organics</u>	<u>D3</u>	<u>524.2</u>
	E	601, <u>602, 624, 1624</u>
	<u>K2</u>	<u>1666</u>
2. <del>Aromatic Volatiles</del>	<del>E</del>	<del>602</del>
32. Acrolein and Acrylonitrile	E	603, <u>624, 1624</u>
43. Phenols	E	604
54. Benzidines	E	605
65. Phthalate Esters	E	606
76. Nitrosamines	E	607
87. Organochlorine Pesticides and <del>PCBs</del>	E	608
<u>Polychlorinated Biphenyls</u>		
98. Nitroaromatics and Isophorone	E	609
109. Polynuclear Aromatic Hydrocarbons	E	610
110. Haloethers	E	611
121. Chlorinated Hydrocarbons	E	612
1312. 2, 3, 7, 8-Tetrachlorodibenzo-p-Dioxin	E	613
13. <u>Tetra- through Octa-Chlorinated</u>	<u>E</u>	<u>1613</u>
<u>Dioxins and Furans</u>		
14. Triazine Pesticides	E	619
15. <del>Purgeables</del>	<del>E</del>	<del>624, 1624</del>
1615. Base/Neutrals and Acids	E	<u>610, 625, 1625</u>
1716. Carbamates and Urea Pesticides	E	632
1817. Total Petroleum Hydrocarbons	A	418.1
1918. Ethylene Glycol in Wastewater	K	BLS-188
19. <u>Organophosphorus Pesticides</u>	<u>E1</u>	<u>614, 1657</u>
E. Radiochemical:	Key	Approved Method
1. Gross Alpha	C	7110B
	I	D1943-90
	L	900
2. Gross Beta	C	7110B
	I	D1890-90
	L	900.0
3. Total Radium	C	7500-Ra B
	I	D2460-90
	L	903.0
4. Radium-226	C	7500-Ra C
	I	D3454-91
	L	903.1

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**~~R9-14-611~~ R9-14-613. Solid, Liquid, and Hazardous Waste Sample ~~Matrix~~ Methods**

Every laboratory which conducts compliance testing under this rule shall use the following approved methods, unless required by ADEQ or EPA, or unless a method falls under an alternate method pursuant to R9-14-608(A) or (B). To locate the source of the approved method, cross reference the capital letter listed under "Key" to the reference designation listed in R9-14-608(C). When conducting compliance testing of a solid, liquid, or hazardous waste sample for a listed contaminant or group of contaminants, a laboratory shall use at least 1 of the corresponding methods listed below, unless the laboratory uses an alternate method approved by the Department for such testing under A.A.C. R9-14-610(B). Where 2 methods listed are joined by the word "and," a laboratory shall use both methods listed. To locate the source of each method listed, cross reference the capital letter listed under the term "Key" below to the corresponding key-reference list in A.A.C. R9-14-610(A).

A. Microbiology:	Key	Approved Method
1. Total Coliforms:		
a. Multiple Tube Fermentation	F	9131
b. Membrane Filter	F	9132
<b>B. Hazardous waste characteristics:</b>	<b>Key</b>	<b>Approved Method</b>
1. Corrosivity:		
a. pH determination	F	9040A <u>9040B</u> , 9041A
b. <del>corrosive</del> <u>Corrosive</u> to steel	F	1110
c. Dermal	F	1120
2. Ignitability	F	1010, 1020A, 1030
3. Reactivity	F	Reactivity
<b>C. Sample extraction procedures:</b>	<b>Key</b>	<b>Approved Method</b>
1. Extraction Procedure Toxicity ( <del>EP-TOX</del> )	F	1310A
2. Toxicity Characteristic Leaching Procedure ( <del>TCLP</del> )	F	1311
3. Multiple Extraction Procedure	F	1320
4. Extraction Procedure <del>For</del> <u>for</u> Oily Waste	F	1330A
5. Synthetic Precipitation Leaching Procedure ( <del>SPLP</del> )	F	1312
<b>D. Metals sample preparation:</b>	<b>Key</b>	<b>Approved Method</b>
1. Dissolved in Water	F	3005A
2. Total Recoverable in Water	F	3005A
3. Total Metals	F	3010A, 3120A
4. Oils, Greases, and Waxes	F	<del>3040</del> , <del>3031</del> , <u>3040A</u>
5. Sediments, Sludges, and Soils	F	<del>3050A</del> <u>3050B</u>
6. Microwave Assisted Digestions	F	3015, 3051, <u>3052</u>
<b>E. Inorganic chemical:</b>	<b>Key</b>	<b>Approved Method</b>
1. Aluminum	F	<del>6010A</del> <u>6010B</u> , 6020, 7020
2. Antimony	F	<del>6010A</del> <u>6010B</u> , 6020, 7040, 7041, 7062
3. Arsenic	F	<del>6010A</del> <u>6010B</u> , 6020, 7060A, 7061A, 7062, 7063, <del>6020</del>
4. Barium	F	<del>6010A</del> <u>6010B</u> , 6020, 7080A, 7081
5. Beryllium	F	<del>6010A</del> <u>6010B</u> , 6020, 7090, 7091
6. Cadmium	F	<del>6010A</del> <u>6010B</u> , 6020, 7130, 7131A
7. Calcium	F	<del>6010A</del> <u>6010B</u> , 7140
8. Chromium, Total	F	<del>6010A</del> <u>6010B</u> , 6020, 7190, 7191
9. Chromium, Hexavalent	F	7195, 7196A, 7197, 7198, 7199
10. Cobalt	F	<del>6010A</del> <u>6010B</u> , 6020, 7200, 7201
11. Copper	F	<del>6010A</del> <u>6010B</u> , 6020, 7210, 7211
12. Iron	F	<del>6010A</del> <u>6010B</u> , 7380, 7381
13. Lead	F	<del>6010A</del> <u>6010B</u> , 6020, 7420, 7421
14. Lithium	F	<del>6010A</del> <u>6010B</u> , 7430
15. Magnesium	F	<del>6010A</del> <u>6010B</u> , 7450
16. Manganese	F	<del>6010A</del> <u>6010B</u> , 6020, 7460, 7461
17. Mercury	F	7470A, 7471A, 7472
18. Molybdenum	F	<del>6010A</del> <u>6010B</u> , 7480, 7481
19. Nickel	F	<del>6010A</del> <u>6010B</u> , 6020, 7520, 7521
20. Osmium	F	<del>6010A</del> <u>6010B</u> , 7550
21. Potassium	F	<del>6010A</del> <u>6010B</u> , 7610
22. Selenium	F	<del>6010A</del> <u>6010B</u> , 7740, 7741A, 7742
23. Silver	F	<del>6010A</del> <u>6010B</u> , 6020, 7760A, 7761

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24. Sodium	F	6010A <u>6010B</u> , 7770
25. Strontium	F	6010A <u>6010B</u> , 7780
26. Thallium	F	6010A <u>6010B</u> , 6020, 7840, 7841
27. Tin	F	6010A <u>6010B</u> , 7870
28. Vanadium	F	6010A <u>6010B</u> , 7910, 7911
29. Zinc	F	6010A <u>6010B</u> , 6020, 7950, 7951
30. White Phosphorus <del>by GC</del>	F	7580
<b>F. Sample preparation and extraction:</b>	Key	Approved Method
1. Preparation and Extraction	F	<del>3500A</del> <u>3500B</u>
2. Funnel Liquid-Liquid Extraction	F	<del>3510B</del> <u>3510C</u>
3. Continuous Liquid-Liquid Extraction	F	<del>3520B</del> <u>3520C</u>
4. Solid Phase Extraction	F	3535
5. Soxhlet Extraction	F	<del>3540B</del> <u>3540C</u> , 3541
6. <del>Accelerated Solvent</del> <u>Pressurized Fluid</u> Extraction	F	3545
7. Sonication Extraction	F	<del>3550A</del> <u>3550B</u>
8. Supercritical Fluid Extraction	F	3560, 3561
9. Waste Dilution	F	3580A, 3585
10. <u>Equilibrium Headspace</u>	F	<u>5021</u>
<del>11</del> 11. Purge and Trap	F	<del>5030A</del> <u>5030B</u> , 5035
12. <u>Distillation</u>	F	<u>5031</u> , <u>5032</u>
<del>13</del> 13. Sorbent Cartridges from Organic Sampling Train	F	<del>5041</del> <u>5041A</u>
<del>14</del> 14. Cyanide Extraction for Solids and Oils	F	9013
<del>15</del> 15. Bomb Preparation Method for Solid Waste	F	5050
<b>G. Sample cleanup:</b>	Key	Approved Method
1. Cleanup	F	<del>3600B</del> <u>3600C</u>
2. Alumina Column	F	<del>3610A</del> <u>3610B</u>
3. Alumina Column - petroleum wastes	F	<del>3611A</del> <u>3611B</u>
4. Florisil Column	F	<del>3620A</del> <u>3620B</u>
5. Silica Gel Cleanup	F	<del>3630B</del> <u>3630C</u>
6. Gel-Permeation Cleanup	F	3640A
7. Acid-Base Partition	F	<del>3650A</del> <u>3650B</u>
8. Sulfur Cleanup	F	<del>3660A</del> <u>3660B</u>
9. Sulfuric Acid/Permanganate Cleanup	F	<del>3665</del> <u>3665A</u>
<b>H. Organic chemical:</b>	Key	Approved Method
1. <del>EDB</del> <u>1,2-Dibromoethane</u> and <del>DBCP</del> <u>1,2-Dibromo-3-Chloropropane</u>	F	8011
2. Nonhalogenated Volatile Organics	F	8015A, 8015M <u>8015B</u>
3. Volatile Organics	F	<del>8021A</del> , <del>8260A</del> <u>8021B</u> , <u>8260B</u>
4. Acrolein/Acrylonitrile/Acetonitrile	F	8316
5. Acrylonitrile	F	8031
6. Acrylamide	F	<del>8032</del> <u>8032A</u>
7. Acetonitrile	F	8033
8. Phenols	F	8041
9. Phthalate Esters	F	<del>8061</del> <u>8061A</u>
10. Nitrosamines	F	<del>8070</del> <u>8070A</u> , 8330
11. Organochlorine Pesticides and <del>PCBs</del>	F	<del>8081</del> <u>8081A</u> , <del>8082</del>
12. <u>Polychlorinated Biphenyls</u>	F	<u>8082</u>
<del>13</del> 13. <del>PCBS</del> <u>Polychlorinated Biphenyls</u> in Waste Oil	FI	EPA-600/4-81-045 600/4-81-045
<del>14</del> 14. Nitroaromatics and Cyclic Ketones	F	<del>8091</del> , 8330, <del>8091</del>
<del>15</del> 15. Polynuclear Aromatic Hydrocarbons	F	8100, 8310
<del>16</del> 16. Haloethers	F	8111
<del>17</del> 17. Chlorinated Hydrocarbons	F	8121
<del>18</del> 18. Organophosphorus Pesticides	F	8141A
<del>19</del> 19. Chlorinated Herbicides	F	<del>8151</del> <u>8151A</u>
<del>20</del> 20. Semivolatile Organics <del>GC/MS</del>	F	<del>8270B</del> <u>8270C</u> , 8275A

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<del>20</del> 21. <del>Semi-Volatiles</del> <u>Semivolatile Organics</u> by GC/FT-IR	F	8410
<del>21</del> 22. Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans	F	<del>8280</del> <u>8280A</u> , 8290
<del>22</del> 23. Carbonyl Compounds	F	<del>8315</del> <u>8315A</u>
<del>23</del> 24. N-Methylcarbamates	F	8318
<del>24</del> 25. <del>Non-Volatile</del> <u>Nonvolatile Organics</u> (HPLC/TSP/MS)(HPLC/PB/MS)	F	<del>8321</del> <u>8321A</u> , 8325
<del>25</del> 26. Tetrazine	F	8331
<del>26</del> 27. Total Petroleum Hydrocarbons in Soil	<del>F</del>	<del>8440</del>
	K	418.1AZ, <del>8440</del>
<del>27</del> 28. <del>Fuel-Class</del> <u>C<sub>10</sub>-C<sub>32</sub></u> Hydrocarbons	K	<del>BLS-191</del> <u>8015AZ</u>
<del>28</del> 29. Trinitrotoluene	F	4050
<del>29</del> 30. RDX by Immunoassay	F	4051
<del>30</del> 31. Aniline and Derivatives	F	8131
<del>31</del> 32. Nitroglycerine	F	8332
<del>32</del> 33. Bis(2-chloroethyl)Ether Hydrolysis Products	F	8430
<b>I.</b> Organic chemical screening:	Key	<u>Approved Method</u>
1. Headspace	F	<del>3810, 5021</del>
2. Purgeables after Hexadecane Extraction	F	3820
3. Semivolatile Organics <del>TC/MS</del>	F	<del>8275</del> <u>8275A</u>
4. Immunoassay	F	<del>4010</del> <u>4010A</u> , 4015, 4020, 4030, 4035, 4040, 4041, 4042
5. Polychlorinated Biphenyls	F	9078, 9079
6. Trinitrotoluene	F	8515
<b>J.</b> Miscellaneous:	Key	<u>Approved Method</u>
1. Cyanide	F	<del>9010A, 9012</del> <u>9010B, 9012A</u> , 9213
2. Total Organic Halides ( <del>TOX</del> )	F	9020B, 9022
3. Purgeable Organic Halides ( <del>POX</del> )	F	9021
4. Extractable Organic Halides ( <del>EOX</del> )	F	9023
5. Sulfides	F	<del>9030A</del> <u>9030B</u> , 9031, 9215
6. Sulfate	F	9035, 9036, 9038, 9056
7. pH (Hydrogen ion)	F	<del>9040A</del> <u>9040B</u> , 9041A, <del>9045B</del> <u>9045C</u>
8. Specific Conductance	F	<del>9050</del> <u>9050A</u>
9. Total Organic Carbon ( <del>TOC</del> )	F	9060
10. Phenolics	F	9065, 9066, 9067
11. Total Recoverable Oil <del>an</del> <u>and</u> Grease	F	9070, 9071A
12. Nitrate	F	<del>9056, 9210, 9056</del>
13. Nitrite	F	9056
14. Chloride	F	<del>9056, 9057, 9212, 9250, 9251,</del> <del>9252A, 9253</del> <u>9057, 9212</u>
15. Bromide	F	9056, 9211
16. Fluoride	F	9056, 9214
17. Total Chlorine in New and Used Petroleum Products	F	9075, 9076, 9077
18. Cation-Exchange Capacity of Soils	F	9080, 9081
19. Compatibility Test <del>For</del> <u>for</u> Wastes and Membrane Liners	F	9090A
20. Paint Filter Liquids Test	F	<del>9095</del> <u>9095A</u>
21. Liquid Release Test Procedure	F	9096
22. <del>Saturates</del> <u>Saturated</u> Hydraulic and Leachate Conductivity, and Intrinsic Permeability	F	9100
<del>23.</del> <del>Chloride</del>	F	9056
<del>24</del> 23. O-Phosphate-P	F	9056

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<b>K. Asbestos:</b>	Key	Approved Method
1. Fiber Counting	G	7400, 7402
2. Bulk Asbestos	G	9002
	H	Bulk Asbestos
<b>L. Radiochemical:</b>	Key	Approved Method
1. Gross Alpha and Beta	F	9310
2. Alpha-Emitting Radium Isotopes	F	9315
3. Radium-228	F	9320

**~~R9-14-612~~ R9-14-614. Air Sample Matrix Methods**

~~Every laboratory which conducts compliance testing under this rule shall use the following approved methods, unless a method falls under an alternate method pursuant to R9-14-608(A) or (B). To locate the source of the approved method, cross reference the capital letter listed under "Key" to the reference designation listed in R9-14-608(C). When conducting compliance testing of an air sample for a listed contaminant or group of contaminants, a laboratory shall use at least 1 of the corresponding methods listed below, unless the laboratory uses an alternate method approved by the Department for such testing under A.A.C. R9-14-610(B). Where 2 methods listed are joined by the word "and," a laboratory shall use both methods listed. To locate the source of each method listed, cross reference the capital letter listed under the term "Key" below to the corresponding key-reference list in A.A.C. R9-14-610(A).~~

<b>A. Ambient air:</b>	Key	Approved Method
1. Carbon Monoxide	O	Appendix C
2. Hydrocarbons	O	Appendix E
3. Lead	O	Appendix G
4. Nitrogen Dioxide	O	Appendix F
5. Ozone	O	Appendix D, H
6. Particulate Matter	O	Appendix B, J, K
7. Sulfur Oxides	O	Appendix A
8. Formaldehyde	F	8520
<b>B. Stationary and stack sources:</b>	Key	Approved Method
1. Carbon Dioxide, Oxygen, and Excess Air	Q	Method 3
2. Carbon Monoxide	Q	Method 10, 10A, 10B
3. Carbonyl Sulfide, Hydrogen Sulfide, and Carbon Disulfide	Q	Method 15
4. Fluoride	Q	Method 13A, 13B, 14
5. Fugitive Emissions	Q	Method 22
6. Gaseous Organic Compounds	Q	Method 18, 25, 25A, 25B
7. Hydrogen Sulfide	Q	Method 11
8. Inorganic Lead	Q	Method 12
9. Moisture Content	Q	Method 4
10. Nitrogen Oxide	Q	Method 7, 7A, 7B, 7C, 7D, 7E, 19, 20
11. Particulate Emissions:		
a. Asphalt Processing	Q	Method 5A
b. Fiberglass Insulation	Q	Method 5E
c. Nonsulfate	Q	Method 5F
d. Nonsulfuric Acid	Q	Method 5B
e. Pressure Filters	Q	Method 5D
f. Stationary Sources	Q	Method 5, 17
g. Sulfur Dioxide	Q	Method 19
h. Wood Heaters	Q	Method 5G, 5H
<b>12. Petroleum Product Analysis:</b>		
a. <u>Hydrometer Method</u>	I	<u>D287-92</u>
b. <u>Sulfur</u>	I	<u>D4294-90</u>
c. <u>Heat of Combustion</u>	I	<u>D240-92</u>
<del>13.</del> Sulfur and Total Reduced Sulfur	Q	Method 15A, 16, 16A, 16B
<del>14.</del> Sulfur Dioxide	Q	Method 6, 6A, 6B, 6C, 8, 19, 20
<del>15.</del> Sulfuric Acid Mist	Q	Method 8
<del>16.</del> Vapor Tightness Gasoline Delivery Tank	Q	Method 27
<del>17.</del> Volatile Matter, Density Solids and <del>water</del> <u>Water</u>	Q	Method 24, 24A

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4718. Volatile Organic Compounds	Q	Method 21
	<u>S1</u>	<u>TO-15</u>
4819. Wood Heaters Certification and Burn Rates	Q	Method 28, 28A
C. ADEQ emission tests:	Key	Approved Method
1. Particulate Emissions:		
a. Sulfuric Acid Mist/Sulfur Oxides	R	Method A1
b. Dry Matter	R	Method A2
D. National emission standards for hazardous air pollutants:	Key	Approved Method
1. Arsenic	S	Method 108, 108A, 108B, 108C
2. Beryllium	S	Method 103, 104
3. Mercury	S	Method 101, 101A, 102, 105
4. Polonium-210	S	Method 111
5. Vinyl Chloride	S	Method 106, 107, 107A

**R9-14-613 R9-14-615. Quality Assurance**

**A.** ~~The laboratory A licensee or an applicant shall have a written quality assurance plan that describes actions to be taken by the lab to ensure that routinely generated the laboratory's analytical data are scientifically valid and defensible and are of known and acceptable precision and accuracy, as prescribed by the approved method for each analysis or as prescribed by the limits established under subsection (C)(8), and are scientifically valid and defensible.~~

**B.** The A licensee or an applicant shall have a written quality assurance plan that shall contain contains:

1. A title page identifying the laboratory; and date of review; and including the laboratory director's signature of approval;
2. A table of contents;
3. A detailed statement of the laboratory organization, including line of authority; and identification of principal quality assurance personnel;
4. A statement of quality assurance objectives, including data quality objectives with precision and accuracy goals; and the criteria for that the laboratory shall use to judge the acceptability of each testing;
5. Specifications for:
  - a. ~~The use of proper sample~~ Sample containers;₃
  - b. ~~The proper preparation~~ Preparation of sample containers;₃
  - c. ~~The proper preservation~~ Preservation of samples;₃ and
  - d. ~~Compliance sample maximum~~ Maximum allowable holding times;
6. A procedure for documenting laboratory receipt of samples and tracking of samples throughout laboratory testing;
7. A procedure for analytical instrument calibration and, including frequency of calibration;
8. A copy of the laboratory's current license and a list of licensed parameters;
9. ~~A listing of the procedures~~ Procedures for compliance testing data reduction; and validation; and reporting. ~~These procedures shall include~~ of final results, including the identification and treatment of data outliers, the determination of the completeness and accuracy of data transcription, and all calculations;
10. A statement of the frequency of use and acceptance tolerance of all ~~compliance testing~~ quality control checks;
11. A statement of the acceptance criteria for all quality control checks;
- ~~12.~~ Preventive maintenance procedures and schedules;
- ~~13.~~ Assessment procedures for data acceptability;
- ~~14.~~ Corrective action procedures taken when results from analytical quality control checks are unacceptable. ~~These procedures shall include, including~~ the steps taken to demonstrate the presence of any interference if the precision, accuracy, or the practical quantitation limit of the reported compliance testing result is affected by the interference; and
- ~~15.~~ Procedures for chain-of-custody documentation, including procedures for the documentation and reporting of any deviation from the sample handling or preservation requirements listed in this Section.

**BC.** ~~The laboratory A licensee or an applicant shall:~~

1. Have available ~~on the premises at the laboratory~~ all methods, equipment, reagents, and glassware necessary for the compliance testing for which the laboratory is licensed or is requesting ~~license. a license~~ if the laboratory documents its ability to perform the approved method and ensures that the analytical data generated are scientifically valid and defensible and are of known and acceptable precision and accuracy it may petition for an exemption only from this subsection;
2. Use only reagents of a grade equal to or greater than that ~~called for~~ required by the approved methods ~~referenced in R9-14-609 A.A.C. R9-14-611 through R9-14-612 A.A.C. R9-14-614;~~
3. Maintain complete and current ~~Standard Operating Procedures~~ standard operating procedures (SOPs) for all licensed methods;
4. Calibrate equipment according to the manufacturer's specifications and as required by the approved method;

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5. Maintain calibration logs documentation available for on-site review. ~~Calibration and documentation thereof by a laboratory instrument service organization is acceptable;~~
6. Develop, document, and maintain current method detection limits and practical quantitation method reporting limits for each compliance parameter; ~~approved method and sample matrix for each instrument of use;~~
7. Maintain all compliance testing equipment in good working order proper operating condition;
8. ~~Maintain quality control charts which demonstrate the accuracy and precision of its compliance testing;~~
98. ~~If a laboratory tests for a parameter for which quality control acceptance criteria is not specified, the laboratory must statistically~~ Statistically develop limits from historical data. ~~The, if the laboratory tests for a parameter for which quality control acceptance criteria are not specified in the method or by EPA or ADEQ, by:~~
  - a. Determining the mean and standard deviation for a minimum of 20 data points, excluding statistical outliers, must be determined. ~~The and~~
  - b. Setting the limits shall be no more than 3 standard deviations from the mean and shall be in the detectable range; and

409. Discard or segregate all expired standards or reagents from all compliance testing.

- D.** A licensee or an applicant may submit a written request to the Department for an exemption from subsection (C)(1) if the licensee or applicant:
1. Documents that the laboratory has performed the approved method and that the analytical data generated were scientifically valid and defensible and of known and acceptable precision and accuracy, and
  2. Documents the laboratory's ability to obtain the equipment, reagent, or glassware necessary to perform the method.
- E.** The written request for an exemption under subsection (D) shall include:
1. The name, address, and telephone number of the laboratory;
  2. The name, address, and telephone number of the licensee or applicant submitting the request;
  3. Identification of the method and the equipment, reagent, or glassware for which the licensee or applicant is requesting an exemption; and
  4. The documentation described in subsection (D)(1) and (2).
- F.** The Department may approve a request for an exemption under subsection (D) if it determines:
1. That the laboratory has performed the approved method;
  2. That the analytical data generated were scientifically valid and defensible and of known and acceptable precision and accuracy; and
  3. That the laboratory is able to obtain the equipment, reagent, or glassware necessary to perform the method.

**R9-14-616. Laboratory Safety**

~~Licensed environmental laboratories shall comply with all applicable federal, state, and local regulations regarding occupational safety and health.~~

**R9-14-614 R9-14-616. Operation**

- A.** ~~All samples accepted by a laboratory for compliance testing shall be analyzed by that laboratory, except that samples, other than those submitted for performance evaluation audit purposes, may be forwarded to another laboratory licensed under this Article or certified by EPA for examination. A compliance sample accepted by a laboratory may be analyzed by the accepting laboratory or another laboratory licensed under this Article or exempted under A.R.S. § 36-495.02(A) or A.A.C. R9-14-602. A proficiency evaluation audit sample shall be analyzed by the accepting laboratory only.~~
- B.** ~~If the laboratory performing an examination analysis is not the accepting laboratory which accepted the sample, all reports required by A.A.C. R9-14-617 shall include the name and address of the accepting laboratory accepting the sample and the name and address of the laboratory actually examining analyzing the compliance sample.~~
- C.** ~~The~~ Each licensed laboratory shall:
1. Maintain the facility and utilities required for proper to operate equipment operation and use of perform compliance testing approved methods;
  2. Provide environmental controls such within the laboratory to ensure that laboratory conditions do not affect analytical results beyond established quality control limits established for the approved methods listed in R9-14-609 A.A.C. R9-14-611 through R9-14-612 A.A.C. R9-14-614;
  3. Provide for storage, handling, and disposal of hazardous materials in accordance with all state and federal regulations; and
  4. Maintain documentation on all the following information relating to supervisory, quality assurance, and analytical personnel involved in compliance testing. The documentation shall provide that all these personnel have been trained in the test procedures prior to their performance of unmonitored testing and the documentation shall include:
    - a). Summary A summary of each analyst's individual's education and professional experience;

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- b). ~~Verification Documentation of the each analyst's individual's review of the laboratory Quality Assurance Plan, quality assurance plan and the approved methods and laboratory Standard Operating Procedures standard operating procedures used by the analyst for compliance testing, within the area or areas of testing for which the individual has supervisory or quality assurance responsibility or performs testing;~~
- c). ~~Verification Documentation of the each analyst's completion of monitored training which includes on the actual use of the equipment and the use of proper laboratory technique. Verification shall include, including the name of the instructor, the duration of the training, and the date of completion of the training;~~
- d). ~~Verification Documentation of the each analyst's completion of all training classes, continuing education courses, seminars, and/or and conferences, which that relate to the testing procedures used by the analyst for compliance testing;~~
- e). ~~Verification Documentation of the each analyst's successful completion of Initial Demonstration of Capability as required by the approved methods;~~
- f). ~~Records of analysis Documentation of proficiency evaluation testing; and~~
- g). ~~Documentation of each individual's applicable certifications and specialized training.~~

**D.** A licensee shall comply with all applicable federal, state, and local occupational safety and health regulations.

**~~R9-14-615~~ R9-14-617. Laboratory Records and Reports**

- A.** ~~Records and reports required to be maintained by this Article shall be available for inspection and copying during normal business hours by representatives of the Department. Copied records can be removed from the laboratory by the Department. Representatives of the Department may remove copied records from a laboratory.~~
- B.** ~~Records~~ A licensee shall maintain records and reports of compliance testing shall be kept by the laboratory and the ability to reproduce all electronic data for at least 5 years from the date of compliance testing. Records A licensee shall maintain records and reports for the most current 2 years shall be kept on-site at the laboratory and may store the remaining records and reports may be stored in a secure and easily accessible storage facility.
- C.** A licensee shall produce all records and reports requested by the Department within 24 hours of the request. The Department may extend the 24-hour time period if the licensee requires a period longer than 24 hours.

**~~CD.~~** If data from Arizona compliance data is samples are not available for inspection and copying, the laboratory licensee shall make available for inspection and copying any current data from non-Arizona out-of-state compliance data samples when such data are requested by Department representatives to evaluate methods and procedures applied for by the laboratory.

**~~DE.~~** Compliance A compliance testing records record shall contain:

- 1. Sample information, including the following:
  - a. ~~a~~ A unique sample identification assigned by the laboratory,
  - b. The location or location code of sample collection,
  - c. The sample collection date and time,
  - d. The type of testing to be performed, and
  - e. ~~the~~ The name of ~~person~~ the individual who collected the sample;
- 2. The name and address of the ~~facility or person~~ client submitting the sample to the laboratory;
- 3. The name of the individual who submitted the sample to the laboratory;
- 34. ~~The date, and time and name of the person who receives of the laboratory's receipt of the sample into the laboratory;~~
- 5. The name of the individual who received the sample into the laboratory;
- 46. ~~The date~~ dates and ~~time~~ times of testing, including the date and time of each critical step;
- 57. The actual results of compliance testing, including all raw data, work sheets, and calculations performed;
- 68. The actual results of quality control data validating the test results, including calibration and calculations performed;
- 79. The name of the ~~person analyst~~ or persons analysts performing who performed the test testing; and
- 810. A copy of the final report.

**E.** ~~Complete laboratory personnel records shall be maintained as to:~~

- 1. ~~Academic training;~~
- 2. ~~Experience;~~
- 3. ~~Qualifications; and~~
- 4. ~~Applicable certifications and/or specialized training.~~

**F.** ~~Analytical instrumentation performance records shall be maintained to demonstrate consistent standardization performance with standardized reference materials.~~

**~~GF.~~** Reports A final report of compliance testing shall contain:

- 1. ~~Laboratory~~ The name, address, and telephone number of the laboratory;
- 2. ~~Laboratory~~ The license number issued assigned to the laboratory by the Department;
- 3. ~~Result of compliance testing in appropriate units of measure:~~
  - a) Actual scientifically valid and defensible results of compliance testing in appropriate units of measure, obtained in accordance with the approved method and the laboratory Quality Assurance Plan quality assurance plan, as described in R9-14-613 A.A.C. R9-14-615, by use of proper laboratory technique;

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- 4. ~~b) Any result~~ Results of compliance testing not obtained in accordance with the approved method and the laboratory ~~Quality Assurance Plan~~ quality assurance plan by use of proper laboratory technique, shall be documented as such on the report;
- 45. A ~~listing~~ list of each the approved method ~~methods~~ used associated with to obtain the reported ~~result~~ results;
- 56. Sample information, including the following:
  - a. ~~the~~ The unique sample identification assigned by the laboratory,
  - b. The location or location code of sample collection,
  - c. The sample collection date and time,
  - d. ~~the~~ The name of the ~~person~~ individual who collected the sample, ~~and~~
  - e. ~~the~~ The name of the ~~facility or person who~~ client that submitted the sample to the laboratory; ~~and~~
  - f. The name of the individual who submitted the sample to the laboratory;
- 7. The date of analysis for each parameter reported;
- 68. The date of the final report; and
- 79. ~~The Laboratory~~ laboratory director's or ~~designee~~ designee's signature.

**R9-14-617 R9-14-618. Mobile Laboratories**

- A. A ~~laboratory~~ An applicant shall obtain a license is required for each mobile laboratory, unless the ~~laboratory owner~~ applicant chooses the single ~~license~~ license option described in R9-14-606(B) for multiple laboratories as described in A.A.C. R9-14-603(E). ~~All~~ A mobile laboratory shall meet all of the requirements of this Article shall be met by the mobile laboratory.
- B. Upon ~~Department~~ request, the ~~owner~~ licensee of ~~the~~ a mobile laboratory shall provide to the Department ~~information of its the mobile laboratory's location and scope of its compliance testing to the Department~~ a list of the parameters it is testing.

**R9-14-618 R9-14-619. Out-of-State Environmental Laboratory ~~License~~ Licensing**

- A. ~~Out-of-state laboratories~~ An out-of-state laboratory applying for or possessing an initial license or a renewal license shall comply with the requirements of A.R.S. §§ ~~36-495 through 36-495.15~~ Title 36, Chapter 4.3 and this Article.
- B. ~~In addition to licensure fees,~~ The licensee or applicant for an out-of-state laboratory shall pay all actual expenses incurred by the Department as a result of its the laboratory's location in another state, including:
- C. ~~An out-of-state laboratory shall pay an amount sufficient to cover:~~
  - 1. The estimated ~~cost~~ costs of all routine inspections each laboratory inspection or investigation at the during the licensure period of that laboratory;
  - 2. The amount by which the actual costs of routine lab inspections each laboratory inspection or investigation at a laboratory exceed the estimated costs; and
  - 3. Additional expenses incurred by the Department for each on-site investigation at the laboratory; and
  - 4. A zone fee for each Department representative required to appear at the laboratory to perform the laboratory inspection or investigation, as follows:
    - a. For zone 1, including California, Nevada, Utah, Colorado, and New Mexico \$ 88.00
    - b. For zone 2, including all states west of the Mississippi River not listed in subsection (4)(a) \$139.00
    - c. For zone 3, including all states east of the Mississippi River and Alaska and Hawaii \$225.00.
- C. The Department determines the estimated costs and zone fees for a laboratory inspection or investigation after making travel arrangements to visit the out-of-state laboratory. The Department then sends a bill for the estimated costs and zone fees to the licensee or applicant for the out-of-state laboratory. The licensee or applicant for the out-of-state laboratory shall submit to the Department the amount of the estimated costs and zone fees within 20 days from the date that the Department sent the bill.
- D. After a laboratory inspection or investigation is completed, the Department determines the actual costs for the laboratory inspection or investigation and any additional expenses incurred for an investigation at a laboratory.
  - 1. If the actual costs and additional expenses exceed the estimated costs and zone fees paid as described in subsection (C), the Department sends a bill to the licensee or applicant for the out-of-state laboratory for the amount by which the actual costs and expenses exceed the estimated costs and zone fees paid. The licensee or applicant for the out-of-state laboratory shall submit to the Department the amount by which the actual costs and expenses exceed the estimated costs and zone fees paid within 20 days from the date that the Department sent the bill.
  - 2. If the actual costs and expenses are less than the estimated costs and zone fees paid as described in subsection (C), the Department shall send a refund or issue a credit to the licensee or applicant for the out-of-state laboratory for the amount by which the estimated costs and zone fees paid exceed the actual costs and expenses. Upon determining that the estimated costs and zone fees paid exceed the actual costs and expenses, the Department shall notify the licensee or applicant and ask whether the licensee or applicant desires a refund or a credit. The Department shall send the refund or issue the credit for the amount by which the estimated costs and zone fees paid exceed the actual costs and expenses within 45 days from the date that the licensee or applicant specified the desired form of payment.

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**R9-14-620. Time-frames**

- A.** The overall time-frame described in A.R.S. § 41-1072 for each type of approval granted by the Department under this Article is set forth in Table 1. The licensee or applicant and the Department may agree in writing to extend the substantive review time-frame and the overall time-frame. An extension of the substantive review time-frame and the overall time-frame may not exceed 25% of the overall time-frame.
- B.** The administrative completeness review time-frame described in A.R.S. § 41-1072 for each type of approval granted by the Department under this Article is set forth in Table 1 and begins on the date that the Department receives an application or request for approval.
1. The Department shall mail a notice of administrative completeness or deficiencies to the licensee or applicant within the administrative completeness review time-frame.
    - a. A notice of deficiencies shall list each deficiency and the items needed to complete the application or request for approval.
    - b. The administrative completeness review time-frame and the overall time-frame are suspended from the date that the notice of deficiencies is issued until the date that the Department receives the missing items from the licensee or applicant.
    - c. If the licensee or applicant fails to submit to the Department all of the items listed in the notice of deficiencies within 180 days from the date that the Department mailed the notice of deficiencies, the Department shall consider the application or request for approval withdrawn.
  2. If the Department issues a license or other approval to the licensee or applicant during the administrative completeness review time-frame, the Department shall not issue a separate written notice of administrative completeness.
- C.** The substantive review time-frame described in A.R.S. § 41-1072 is set forth in Table 1 and begins on the date of the notice of administrative completeness.
1. As part of the substantive review for an initial license application, the Department shall conduct a laboratory inspection and may conduct an investigation or a proficiency evaluation audit, or both.
    - a. The Department shall commence the laboratory inspection, investigation, or proficiency evaluation audit, or combination of the 3, no more than 30 days after notice of administrative completeness has been mailed for an in-state laboratory or no more than 60 days after notice of administrative completeness has been mailed for an out-of-state laboratory.
    - b. The Department and applicant may mutually agree in writing to extend the laboratory inspection, proficiency evaluation audit, or investigation dates.
  2. The Department shall mail written notification of approval or denial of the application or other request for approval to the licensee or applicant within the substantive review time-frame.
  3. During the substantive review time-frame, the Department may make 1 comprehensive written request for additional information, unless the Department and the licensee or applicant have agreed in writing to allow the Department to submit supplemental requests for information.
  4. If the Department issues a comprehensive written request or a supplemental request for information, the substantive review time-frame and the overall time-frame shall be suspended from the date that the Department issues the request until the date that the Department receives all of the information requested.
  5. The Department shall issue an approval unless:
    - a. For an initial license application or a regular license renewal application where the regular license is not suspended, the Department determines that grounds to deny the license exist under A.R.S. § 36-495.09;
    - b. For a regular license renewal application where the regular license is suspended, the Department determines that the licensee is not in full compliance with the corrective action plan; A.R.S. Title 36, Chapter 4.3; and this Article;
    - c. For a request for approval of a new alternate method or method alteration, the Department determines that use of the method is not required or authorized by an EPA or ADEQ statute or rule or is not justified as described in A.A.C. R9-14-610(B)(2)(d); or
    - d. For an exemption under A.A.C. R9-18-615(D), the Department determines that the laboratory has not performed the approved method; that the analytical data generated were not scientifically valid and defensible and of known and acceptable precision and accuracy; or that the laboratory is not able to obtain the equipment, reagent, or glassware necessary to perform the method.
  6. If the Department disapproves an application or request for approval, the Department shall send to the applicant a written notice of disapproval setting forth the reasons for disapproval and all other information required by A.R.S. § 41-1076.

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**Table 1. Time-frames (in days)**

<u>Type of Approval</u>	<u>Statutory Authority</u>	<u>Overall Time-frame</u>	<u>Administrative Completeness Review Time-frame</u>	<u>Substantive Review Time-frame</u>
<u>Initial License–In-State Laboratory</u>	<u>A.R.S. §§ 36-495.01, 36-495.03</u>	<u>201</u>	<u>21</u>	<u>180</u>
<u>Initial License–Out-of-State Laboratory</u>	<u>A.R.S. §§ 36-495.01, 36-495.03</u>	<u>231</u>	<u>21</u>	<u>210</u>
<u>Regular License Renewal–In-State Laboratory</u>	<u>A.R.S. §§ 36-495.01, 36-495.03</u>	<u>37</u>	<u>14</u>	<u>23</u>
<u>Regular License Renewal–Out-of-State Laboratory</u>	<u>A.R.S. §§ 36-495.01, 36-495.03, 36-495.14</u>	<u>67</u>	<u>14</u>	<u>53</u>
<u>Regular License Renewal–In-State Laboratory with Provisional License</u>	<u>A.R.S. §§ 36-495.01, 36-495.03, 36-495.05</u>	<u>70</u>	<u>21</u>	<u>49</u>
<u>Regular License Renewal–Out-of-State Laboratory with Provisional License</u>	<u>A.R.S. §§ 36-495.01, 36-495.03, 36-495.05, 36-495.14</u>	<u>100</u>	<u>21</u>	<u>79</u>
<u>Alternate Method or Method Alteration–Required or Authorized by EPA/ADEQ</u>	<u>A.R.S. § 36-495.01</u>	<u>105</u>	<u>15</u>	<u>90</u>
<u>Alternate Method or Method Alteration–Not Required or Authorized by EPA/ADEQ</u>	<u>A.R.S. § 36-495.01</u>	<u>210</u>	<u>30</u>	<u>180</u>
<u>Exemption under A.A.C. R9-14-615(D)</u>	<u>A.R.S. § 36-495.01</u>	<u>60</u>	<u>15</u>	<u>45</u>